

**THE McDANIEL LAW FIRM, P.C.**  
54 Main Street  
Hackensack, New Jersey 07601  
201-845-3232  
201-845-3777 (Facsimile)  
*Attorneys for Plaintiff Peter Brownstein*

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY**

PETER BROWNSTEIN,

Plaintiff,

v.

TINA LINDSAY and ETHNIC  
TECHNOLOGIES, LLC.,

Defendants.

Civ. Action. No. 3:10-cv-01581 (JAP) (TJB)

**FIRST AMENDED COMPLAINT**

Plaintiff **PETER BROWNSTEIN** by way of Complaint against Defendants **TINA LINDSAY** and **ETHNIC TECHNOLOGIES, LLC**, alleges as follows:

**SUMMARY OF ACTION**

1. This is an action brought under federal copyright law seeking a declaratory judgment that plaintiff Peter Brownstein is the co-author of a joint work for which defendant Tina Lindsay registered two copyrights in 1996 and that he is entitled to continue receiving a reasonable royalty for the exploitation of the joint work. In addition, Brownstein, who is the author of multiple programs used to encode name and address lists with ethnic characteristics, seeks imposition of a constructive trust or resulting trust as well as replevin of various creative works, of which he is the sole author, that are maintained at the offices of defendant Ethnic Technologies, LLC.

## **THE PARTIES**

2. Plaintiff Peter Brownstein (hereinafter "Brownstein") is an individual residing at 54 Broad Avenue, Apt. 5B, Palisades Park, New Jersey 07650. Brownstein is the owner of 50 percent of the issued shares of TAP Systems, Inc., a New Jersey Corporation (hereinafter "TAP"), which in turn is a 50 percent owner of defendant E-Tech, a New Jersey limited liability company. As set forth below, Brownstein is also a manager and formerly the Chief Information Officer of E-Tech, the author of multiple computer programs used in the business of E-Tech, including a series of programs which he holds the copyright for, and the putative co-author of the Lindsay Cultural Identification System for which two copyrights were filed in 1996.

3. Defendant Tina Lindsay (hereinafter "Lindsay") is an individual residing at 44 Briarwood Avenue, Keansburg, New Jersey 07734. Lindsay is the other 50 percent shareholder of TAP and is also a manager and Chief Financial Officer, Director of Research of E-TECH. She is the co-author of a work previously known as the "Lindsay Cultural Identification System" (hereinafter "LCID"), an ethnic determinant system for which two copyrights were filed in 1996.

4. Defendant Ethnic Technologies, LLC ("E-Tech") is located at 600 Huyler Street, South Hackensack, New Jersey 07606 and is a joint venture between TAP and Consumers Marketing Research, Inc. ("CMR"). E-Tech provides list and data enhancement services for ethnic, religious, and language preference for targeted marketing and other uses. Its products include software licensed to third parties, name and address list encoding for ethnic characteristics and the sale of direct mail lists targeting specific ethnic or language groups.

## **JURISDICTION AND VENUE**

5. This is an action seeking a declaratory judgment, pursuant to 28 U.S.C. §2201, declaring Plaintiff Brownstein a co-author and co-owner of two copyrighted works falsely registered by Lindsay as her own works.

6. This Court has original subject matter jurisdiction over this matter under 28 U.S.C. §1338(a) because it seeks declaratory judgment concerning questions of federal law arising under the U.S. Copyright Act, 17 U.S.C. §101 et seq.

7. This Court has supplemental jurisdiction over the claims arising under state law pursuant to 28 U.S.C. § 1367 as they are so related to claims in the action within the original jurisdiction of this Court that they form part of the same case or controversy.

8. Upon information and belief, Lindsay is a New Jersey domiciliary who maintains a New Jersey residence in this district and is subject to general jurisdiction within this State.

9. Venue is proper under 28 U.S.C. § 1400(a) in that the Defendants reside in this district are subject to personal jurisdiction in this district at the commencement of this action, and because the events which gave rise to this claim occurred in this district.

## **FACTS**

10. Lindsay and Brownstein were co-workers at Future Prospective Clients, Inc. and List Services Direct, Inc. in the early 1990s. Between 1993 and January, 1996, Lindsay developed a process for identifying a person's probable ethnic characteristics (race, ethnic background, language, religion) based on a set of rules applied to the person's name and address. Lindsay's work was done outside of her regular employment duties.

11. Brownstein, also working outside the scope of his employment, wrote a set of computer programs to apply Lindsay's process to databases containing names and addresses, a process that would ultimately come to be known as ethnic encoding.

12. Lindsay, as the sole author, filed a copyright registration, No. TXu-730-872, effective February 12, 1996, entitled "An ethnic determinant system: knowledge and role exception basis" (the "872 Registration"). A true and accurate copy of the certificate of the 872 Registration is attached hereto as **Exhibit A**.

13. The 872 Registration contains a document entitled "Ethnic System - System Design for Encoding a Residential Database or Business Database with Contact Manes," dated October 1994. A true and accurate copy of this document is attached hereto as **Exhibit B**.

14. The October 1994 document is a description of the work jointly created by Brownstein and Lindsay and indicates that the work was in fixed form at or about that time.

15. On June 17, 1996, TAP was organized under New Jersey law. Lindsay and Brownstein each received 50 percent of the shares of TAP. Lindsay was elected president and Brownstein was elected secretary/treasurer.

16. Lindsay then secured a second copyright registration, No. TXu-778-127, effective December 10, 1996 (the "127 Registration"), also as the sole author. The claim alleged the addition of new matter and that Lindsay was the sole author of the work. Brownstein was not supplied with a copy of the certificate of registration. A true and accurate copy of the certificate of the 127 Registration is attached hereto as **Exhibit C**.

17. On June 1, 1997, Lindsay, individually, as the copyright holder, executed a "Software License Agreement" conveying to TAP the exclusive license to market, demonstrate and distribute the matter covered by the copyrights. The licensed product was identified as the

Lindsay Cultural Identity Determiner ("LCID") that "consists of a set of both computer programs and data files." A true and correct copy of the license is attached hereto as **Exhibit D**.

18. The Ethnic Determinant System, later known as the LCID, is a joint work, including both the rules created by Lindsay for ethnic encoding and the source code of the computer programs created by Brownstein, that were fixed in a tangible form in or about October 1994. Brownstein's work was incorporated into the subsequent registrations filed by Lindsay. See **Exhibit A**. The application falsely states that the Lindsay is the sole author of said derivative works, omitting Brownstein as the co-author.

19. In 1997, Brownstein created at least six computer programs to enhance the LCID. Brownstein applied for and received a certificate of U.S. copyright registration to the source code of said six computer programs, as derivative works of the LCID, in his own name as author. A true and accurate copy of the certificate of registration for these programs is attached hereto as **Exhibit E**.

20. On or about September 26, 1997, TAP entered into a joint venture agreement with Consumers Marketing Research, Inc., a New Jersey Corporation (hereinafter "CMR"), to form a limited liability company. As a part of said agreement, TAP licensed its intellectual property including the LCID and its derivative works (now called the TAP System) to the LLC and CMR also licensed its database of ethnic names. Brownstein, Lindsay and Ginger Nelson ("Nelson") were named managers of the LLC. The agreement specifically disclaimed any agency relationship between the members.

21. In 1998, Brownstein created at least two computer programs to enhance the LCID. Brownstein applied for and received a certificate of U.S. copyright registration to the source code of said two computer programs, as derivative works of the LCID, in his own name

as author. A true and accurate copy of the certificate of registration for these programs is attached hereto as **Exhibit F**.

22. On or about December 28, 2000, TAP entered into the operating agreement with CMR, to form Ethnic Technologies, LLC, a New Jersey limited liability company ("E-Tech"). Subject to said agreement, TAP licensed its TAP System through December 31, 2017, at which time E-Tech is to dissolve and distribute its assets to the members.

23. From 2000 to June 2009, Brownstein created numerous computer programs to enhance the LCID. Each such program was identified as the property of TAP Systems.

24. In May 2009, Brownstein commenced an action in the Superior Court of New Jersey, Chancery Division, Bergen County, captioned Brownstein v. Lindsay, No. C-150-09, alleging, *inter alia*, that Nelson, Lindsay and E-Tech's Chief Executive Officer were attempting to exclude Brownstein from the business. Defendants Nelson and Lindsay purported to "terminate" Brownstein as Chief Information Officer and have excluded him from the premises. On September 4, 2009, Brownstein consented, without admission of liability, to an injunction prohibiting him from entering E-Tech's premises. A companion matter, Lindsay v. Brownstein, Docket No. C-209-09, was subsequently filed seeking a compelled share of Brownstein's interest in TAP and E-Tech.

25. During the course of discovery, Brownstein's attorneys had reason to suspect that the 127 Registration contained computer programs that he had authored and sought to secure a copy of the deposited work for review. The U.S. Copyright Office, however, rejected the request. Brownstein first discovered the existence and scope of the 127 Registration as a joint work when Lindsay testified that she had incorporated Brownstein's programs in the 127

Registration during her deposition in February 2010. Brownstein also first discovered the existence of the license from Lindsay to TAP in February 2010.

26. Brownstein thereafter demanded of Lindsay, through her counsel, that she amend the 127 Registration. A true and accurate copy of letter correspondence from Jay R. McDaniel, Esq. to Thomas S. Howard, Esq., dated March 5, 2010, is attached hereto as **Exhibit G**.

27. Lindsay's lawyer expressly repudiated Brownstein's co-ownership of the LCID by letter dated March 9, 2010. A true and accurate copy of letter correspondence from Thomas S. Howard, Esq. to Jay R. McDaniel, Esq., dated March 9, 2010, is attached hereto as **Exhibit H**.

**COUNT I**  
**(Declaratory Judgment as to the LCID)**

28. Brownstein repeats and re-alleges the foregoing paragraphs as if fully set forth herein.

29. The Ethnic Determination System/LCID, the subject of the 872 and 127 Registrations, is a joint work, incorporating the encoding rules authored by Lindsay and the programs written by Brownstein as a complete work. Brownstein is the co-author and co-owner of the copyrighted work as provided for by the Copyright Act, 17 U.S.C. §101, et seq.

30. Upon information and belief, Lindsay was aware of Brownstein's ownership interest and, with scienter, failed to apprise Brownstein of the fact that his programs had been incorporated into the 872 and 127 Registrations, or that she had made the written assignment of the LCID to TAP.

31. Brownstein discovered the existence of the joint work only as a result of litigation involving the principals of E-Tech. He was at all times treated as the co-owner of TAP's

intellectual property and had no reason to believe that Lindsay was claiming the LCID, including his programs, for herself.

32. Lindsay's express repudiation of Brownstein's ownership in the LCID is in direct conflict with his ownership rights.

33. By virtue of the foregoing, an actual and justiciable controversy exists between Brownstein and Lindsay with respect to whether Brownstein is the co-author of the LCID.

34. Accordingly, Brownstein is entitled to a declaration that he is the co-author of the LCID and co-owner of the copyright to the LCID.

**WHEREFORE,** Plaintiff demands judgment against defendant as follows:

- A. A declaration that Brownstein is the co-author of the LCID and co-owner of the copyright to the LCID;
- B. A declaration that the 3082 and 8127 certificates of U.S. copyright registration to the LCID in the name of Tina Lindsay be corrected to add Brownstein as the co-author of the works;
- C. A declaration that unilateral assignment by Lindsay of the LCID to TAP does not convey the interest of Brownstein as joint author of the work;
- D. A declaration of a reasonable royalties arising from the use of the LCID;
- E. For attorney fees and cost of the suit;
- F. For such other and further relief as the Court deems appropriate.



**COUNT II**  
**(Imposition of a Constructive Trust)**

35. Brownstein repeats and re-alleges the foregoing paragraphs as if fully set forth herein.

36. From the time that TAP was formed through the present, Lindsay and Brownstein were fiduciaries to each other as owners of TAP and as Managers of E-Tech.

37. In breach of the duties of loyalty and care, Lindsay failed to disclose to Brownstein that the 872 and 127 Registrations concerned a joint work of which Brownstein was the co-author.

38. Brownstein has contributed to the development of the LCID extensively, writing approximately 100 programs for its development and application and supervising the development of multiple derivate works, including software for multiple platforms.

39. Lindsay has disclaimed Brownstein's rights as co-author and is seeking to exclude him from the business of E-Tech, which successfully markets the LCID and derivative works.

40. Lindsay will be unjustly enriched if she is permitted to retain sole ownership of the LCID and, accordingly, a constructive trust must be declared concerning the work and in the receipt of all proceeds, past and future, received as a result of the exploitation of the LCID.

**WHEREFORE,** plaintiff demands judgment against defendants as follows:

- A. Imposition of a constructive trust on the LCID for the benefit of TAP and Brownstein;
- B. Imposition of an equitable lien on the LCID in favor of Brownstein;
- C. An accounting for the royalties due and owing to Brownstein as co-author;
- D. For attorney fees and cost of the suit;
- E. For such other and further relief as the Court deems appropriate.

**COUNT III**  
**(Imposition of a Resulting Trust)**

41. Brownstein repeats and re-alleges the foregoing paragraphs as if fully set forth herein.

42. Brownstein has contributed to the development of the LCID extensively, writing approximately 100 programs for its development and application and supervising the development of multiple derivative works, including software for multiple platforms.

43. Brownstein's work has been incorporated in the joint work contained in the 127 Registration and the derivative works thereafter developed by E-Tech.

44. At no time did Brownstein intend to convey his ownership interest in the intellectual property he developed individually, nor to convey any right to make derivative works.

45. A resulting trust should be imposed on the LCID to the extent necessary to protect Brownstein's interest.

**WHEREFORE,** plaintiff demands judgment against defendants as follows:

- A. Imposition of a resulting trust on the LCID for the benefit of Brownstein;
- B. Imposition of an equitable lien on the LCID in favor of Brownstein;
- C. An accounting for the royalties due and owing to Brownstein as co-author;
- D. For attorney fees and cost of the suit;
- E. For such other and further relief as the Court deems appropriate.

**COUNT IV**  
**(Replevin)**

46. Brownstein repeats and re-alleges the foregoing paragraphs as if fully set forth herein.

47. Brownstein has contributed to the development of the LCID extensively, writing approximately 100 programs for its development and application and supervising the development of multiple derivate works, including software for multiple platforms.

48. The foregoing programs contain the individually owned intellectually property of Brownstein, much of it developed over a career as a software developer.

49. All works created prior to the execution of the 2000 agreement between TAP and CMR are the individual property of Brownstein and he claims authorship and the copyrights thereof.

50. Brownstein stored these programs on removable media in his office at E-Tech and on designated storage locations on the E-Tech network. Defendants have locked Brownstein out of the offices of E-Tech and refuse to provide Brownstein copies of programs that he authored.

51. The foregoing conduct wrongfully interferes with Brownstein's rights as author, including the right to make copies of work that he authored and the right to prevent the unauthorized use by others.

**WHEREFORE**, plaintiff demands judgment against defendants as follows:

- A. For replevin of copies of all programs authored by Brownstein;
- B. For an order prohibiting the destruction or obliteration of archival copies of the software utilized by E-Tech;
- C. For attorney fees and cost of the suit;
- D. For such other and further relief as the Court deems appropriate.

**JURY DEMAND**

Plaintiff Brownstein demands trial by jury of all issues so triable.

DATED: January 9, 2012

**THE MCDANIEL LAW FIRM, P.C.**



By: \_\_\_\_\_

Jay R. McDaniel, Esq.

*Attorneys for Plaintiff Peter Brownstein*

**LOCAL RULE 11.2 CERTIFICATION**

I certify that to the best of my knowledge, the matter in controversy is not the subject of any other action pending in any court, or of any pending arbitration or administrative proceeding.

DATED: January 9, 2012

**THE MCDANIEL LAW FIRM, P.C.**

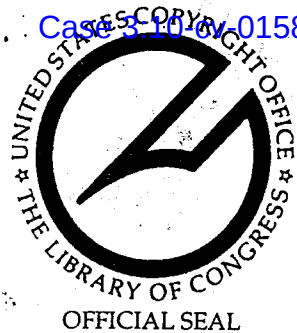


By: \_\_\_\_\_

Jay R. McDaniel, Esq.

*Attorneys for Plaintiff Peter Brownstein*

# EXHIBIT A



This Certificate issued under the seal of the Copyright Office in accordance with title 17, United States Code, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

Marybeth Peters

REGISTER OF COPYRIGHTS  
United States of America

FORM TX  
For a Literary Work  
UNITED STATES COPYRIGHT OFFICE  
REC

TXu 730-872



EFFECTIVE DATE OF REGISTRATION

FEB 12 1996

Month Day Year

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

1 TITLE OF THIS WORK ▼

An Ethnic Determinant System - Knowledge and Rule/Exception Basis

PREVIOUS OR ALTERNATIVE TITLES ▼

PUBLICATION AS A CONTRIBUTION If this work was published as a contribution to a periodical, serial, or collection, give information about the collective work in which the contribution appeared. Title of Collective Work ▼

If published in a periodical or serial give: Volume ▼ Number ▼ Issue Date ▼ On Pages ▼

2 a NAME OF AUTHOR ▼

TINA LINDSAY

DATES OF BIRTH AND DEATH

Year Born ▼ Year Died ▼  
1941

Was this contribution to the work a "work made for hire"?  
☐ Yes  
☒ No

AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country  
OR Citizen of ▼ U.S.A.  
Domiciled in ▼

WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK  
Anonymity? ☐ Yes ☒ No  
Pseudonym? ☐ Yes ☒ No

If the answer to either of these questions is "Yes," see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼

b NAME OF AUTHOR ▼

DATES OF BIRTH AND DEATH

Year Born ▼ Year Died ▼

Was this contribution to the work a "work made for hire"?  
☐ Yes  
☐ No

AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country  
OR Citizen of ▼  
Domiciled in ▼

WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK  
Anonymity? ☐ Yes ☐ No  
Pseudonym? ☐ Yes ☐ No

If the answer to either of these questions is "Yes," see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼

NAME OF AUTHOR ▼

DATES OF BIRTH AND DEATH

Year Born ▼ Year Died ▼

Was this contribution to the work a "work made for hire"?  
☐ Yes  
☐ No

AUTHOR'S NATIONALITY OR DOMICILE  
Name of Country  
OR Citizen of ▼  
Domiciled in ▼

WAS THIS AUTHOR'S CONTRIBUTION TO THE WORK  
Anonymity? ☐ Yes ☐ No  
Pseudonym? ☐ Yes ☐ No

If the answer to either of these questions is "Yes," see detailed instructions.

NATURE OF AUTHORSHIP Briefly describe nature of material created by this author in which copyright is claimed. ▼

3 a YEAR IN WHICH CREATION OF THIS WORK WAS COMPLETED

1996

This information must be given Year in all cases.

b DATE AND NATION OF FIRST PUBLICATION OF THIS PARTICULAR WORK

Complete this information ONLY if this work has been published. Month Day Year

4 COPYRIGHT CLAIMANT(S) Name and address must be given even if the claimant is the same as the author given in space 2 ▼

TINA LINDSAY  
44 BRIARWOOD AVENUE  
KEANSBURG, NJ 07734

TRANSFER If the claimant(s) named here in space 4 is (are) different from the author(s) named in space 2, give a brief statement of how the claimant(s) obtained ownership of the copyright. ▼

APPLICATION RECEIVED

FEB 12 1996

ONE DEPOSIT RECEIVED

FEB 12 1996

TWO DEPOSITS RECEIVED

FUNDS RECEIVED

MORE ON BACK ► • Complete 2 • See detailed instructions

DO NOT WRITE HERE  
Page 1 of 2 pages

EXAMINED BY *Vg*

CHECKED BY

FORM TX

☐ CORRESPONDENCE

Yes

FOR  
COPYRIGHT  
OFFICE  
USE  
ONLY

DO NOT WRITE ABOVE THIS LINE. IF YOU NEED MORE SPACE, USE A SEPARATE CONTINUATION SHEET.

PREVIOUS REGISTRATION Has registration for this work, or for an earlier version of this work, already been made in the Copyright Office?

☐ Yes ☒ No If your answer is "Yes," why is another registration being sought? (Check appropriate box) ▼a. ☐ This is the first published edition of a work previously registered in unpublished form.b. ☐ This is the first application submitted by this author as copyright claimant.c. ☐ This is a changed version of the work, as shown by space 6 on this application.

If your answer is "Yes," give: Previous Registration Number ▼

Year of Registration ▼

DERIVATIVE WORK OR COMPILATION Complete both space 6a and 6b for a derivative work; complete only 6b for a compilation.

a. Preexisting Material Identify any preexisting work or works that this work is based on or incorporates. ▼

b. Material Added to This Work Give a brief, general statement of the material that has been added to this work and in which copyright is claimed. ▼

—space deleted—

REPRODUCTION FOR USE OF BLIND OR PHYSICALLY HANDICAPPED INDIVIDUALS A signature on this form at space 10 and a check in one of the boxes here in space 8 constitutes a non-exclusive grant of permission to the Library of Congress to reproduce and distribute solely for the blind and physically handicapped and under the conditions and limitations prescribed by the regulations of the Copyright Office: (1) copies of the work identified in space 1 of this application in Braille (or similar tactile symbols); or (2) phonorecords embodying a fixation of a reading of that work; or (3) both.

a ☐ Copies and Phonorecordsb ☒ Copies Onlyc ☐ Phonorecords Only

See instructions

DEPOSIT ACCOUNT If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.

Name ▼

Account Number ▼

CORRESPONDENCE Give name and address to which correspondence about this application should be sent. Name/Address/Apt/City/State/ZIP ▼

TINA LINDSAY

44 BRIARWOOD AVENUE

KEANSBURG NJ 07734

Area Code and Telephone Number ▶ 201 495 6233

Be sure to  
give your  
daytime phone  
number

CERTIFICATION\* I, the undersigned, hereby certify that I am the

Check only one ▶

☒ author☐ other copyright claimant☐ owner of exclusive right(s)☐ authorized agent of

Name of author or other copyright claimant, or owner of exclusive right(s) ▲

of the work identified in this application and that the statements made by me in this application are correct to the best of my knowledge.

Typed or printed name and date ▼ If this application gives a date of publication in space 3, do not sign and submit it before that date.

TINA LINDSAY

date ▶ 1/7/96

Handwritten signature (A) ▶

MAIL  
CERTIFI-  
CATE TO

Name ▼

TINA LINDSAY

Number Street Apartment Number ▼

44 BRIARWOOD AVENUE

City State ZIP ▼

KEANSBURG NJ 07734

Certificate  
will be  
mailed in  
window  
envelope

## YOU MUST:

- Complete all necessary spaces
- Sign your application in space 10

SEND ALL 3 ELEMENTS  
IN THE SAME PACKAGE

1. Application form
2. Nonrefundable \$20 filing fee in check or money order payable to Register of Copyrights
3. Deposit material

## MAIL TO:

Register of Copyrights  
Library of Congress  
Washington, D.C. 20559-6000

The Copyright Office has the authority to adjust fees at 5-year intervals, based on changes in the Consumer Price Index. The next adjustment is due in 1996. Please contact the Copyright Office after July 1995 to determine the actual fee schedule.

17 U.S.C. § 506(e): Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 409, or in any written statement filed in connection with the application, shall be fined not more than \$2,500.

July 1993—200,000

PRINTED ON RECYCLED PAPER

U.S. GOVERNMENT PRINTING OFFICE: 1993-342-582 80 019

# EXHIBIT B



ETHNIC SYSTEM  
SYSTEM DESIGN FOR ENCODING A RESIDENTIAL DATABASE  
OR BUSINESS DATABASE WITH CONTACT MANES

TINA LINDSAY  
OCTOBER, 1994

ETHNIC TABLE

THIS IS A DESIGN OF AN ETHNIC TABLE USED IN CORRESPONDENCE WITH A FILE ENCODED WITH 2 TWO POSITION ETHNIC CODES. GIVEN ANY ETHNIC CODE FROM THE BELOW VALUES, INFERENCE LOGIC DETERMINES THE MOST LIKELY RACE AND RELIGION .THE RESULTING TABLE MAY BE USED TO DETERMINE THE ETHNICITY OF ANY LAST NAME FOUND IN A LIST.

THE ETHNICITY OF A SURNAME IS BEST APPLIED AT A HOUSEHOLD LEVEL, BUT IS NOT NECESSARILY LIMITED TO IT. IN ORDER TO AVOID ERRORS MADE IN COMPETITORS ETHNIC SYSTEMS, THE CODES SPECIFIED HEREIN MAY BE APPLIED TO ALL MALES AND UNMARRIED FEMALES. THE CODE MAY BE APPLIED TO ALL RESIDENCES SHOULD A CUSTOMER PREFER A LOOSER SELECT.

-----  
FOLLOWING ARE THE CODES USED TO ENCODE A MASTER LIST:

| CODE | ETHNICITY<br>DESCRIPTOR | INFERRED<br>RELIGION | INFERRED<br>RACE |
|------|-------------------------|----------------------|------------------|
| 00   | UNKNOWN                 | -                    | -                |
| 01   | ENGLISH                 | P                    | W                |
| 02   | SCOTCH                  | P                    | W                |
| 03   | DANISH                  | P                    | W                |
| 04   | SWEDISH                 | P                    | W                |
| 05   | NORWEGIAN               | P                    | W                |
| 06   | FINNISH                 | P                    | W                |
| 07   | ICELANDIC               | P                    | W                |
| 08   | DUTCH                   | P                    | W                |
| 09   | BELGIAN                 | P                    | W                |
| 10   | GERMAN                  | P                    | W                |
| 11   | AUSTRIAN                | C                    | W                |
| 12   | HUNGARIAN               | C                    | W                |
| 13   | CZECH                   | C                    | W                |
| 14   | SLOVAKIAN               | C                    | W                |
| 15   | IRISH                   | C                    | W                |
| 16   | WELSH                   | C                    | W                |
| 17   | FRENCH                  | C                    | W                |
| 18   | NOT USED                |                      |                  |
| 19   | ITALIAN                 | C                    | W                |
| 20   | SPANISH                 | C                    | W                |
| 21   | PORTUGUES               | C                    | W                |
| 22   | POLISH                  | C                    | W                |
| 23   | ESTONIAN                | O                    | W                |
| 24   | LATVIAN                 | O                    | W                |
| 25   | LITHUANIAN              | O                    | W                |
| 26   | UKRAINIAN               | O                    | W                |
| 27   | GEORGIAN                | O                    | W                |
| 28   | BYELORUSSIAN            | O                    | W                |
| 29   | ARMENIAN                | O                    | W                |
| 30   | RUSSIAN                 | O                    | W                |
| 31   | TURK                    | I                    | W                |
| 32   | NOT USED                |                      |                  |
| 33   | GREEK                   | O                    | W                |
| 34   | PERSIAN                 | I                    | W                |
| 35   | NOT USED                |                      |                  |
| 36   | BULGARIAN               | O                    | W                |

|    |                 |   |   |
|----|-----------------|---|---|
| 37 | ROMANIAN        | O | W |
| 38 | ALBANIAN        | O | W |
| 39 | AMERICAN INDIAN | X | O |
| 40 | SLOVENIAN       | I | W |
| 41 | CROATIAN        | C | W |
| 42 | SERBIAN         | O | W |
| 43 | BOSNIAN         | I | W |
| 44 | AZERBEJANIAN    | I | W |
| 45 | KAZAKHSTANI     | I | W |
| 46 | AFGHANISTANI    | I | W |
| 47 | PAKISTANI       | I | W |
| 48 | BENGLADESH      | I | W |
| 49 | INDONESIAN      | I | ? |
| 50 | INDIAN          | H | W |
| 51 | BURMESE         | B | O |
| 52 | MONGOLIAN       | B | O |
| 53 | CHINESE         | B | O |
| 56 | KOREAN          | B | O |
| 57 | JAPANESE        | S | O |
| 58 | THAI            | B | O |
| 59 | MALAY           | B | O |
| 60 | LAOTIAN         | B | O |
| 61 | KHMER           | B | O |
| 62 | VIETNAMESE      | B | O |
| 63 | SRI LANKAN      | X | O |
| 64 | UZBEKISTANI     | I | W |
| 65 | OTHER ORIENTAL  | B | O |
| 66 | JEWISH          | J | W |
| 67 | NOT USED        |   |   |
| 68 | NOT USED        |   |   |
| 69 | NOT USED        |   |   |
| 70 | ARAB            | I | A |
| 71 | NOT USED        |   |   |
| 72 | NOT USED        |   |   |
| 73 | NOT USED        |   |   |
| 74 | NOT USED        |   |   |
| 75 | NOT USED        |   |   |
| 76 | NOT USED        |   |   |
| 77 | NOT USED        |   |   |
| 78 | NOT USED        |   |   |
| 79 | RUANDAN         | X | B |
| 80 | NOT USED        |   |   |
| 81 | SENEGALESE      | X | B |
| 82 | NOT USED        |   |   |
| 83 | NOT USED        |   |   |
| 84 | MOROCCAN        | I | A |
| 85 | BLACK AFRICAN   | X | B |
| 86 | KENYA           | X | B |
| 87 | NIGERIAN        | X | B |
| 88 | GHANA           | X | B |
| 89 | ZAMBIAN         | X | B |
| 90 | ZAIRE           | X | B |
| 91 | SURINAM         | X | B |
| 92 | MOZAMBIQUE      | X | B |
| 93 | IVORY COAST     | X | B |
| 94 | BHUTANESE       | X | B |
| 95 | ETHIOPIAN       | X | B |
| 96 | UGANDAN         | X | B |
| 97 | BOTSWANIAN      | X | B |
| 98 | CAMEROON        | X | B |
| 99 | ZIMBABWE        | X | B |
| 9A | NAMIBIAN        | X | B |
| 9B | NOT USED        |   |   |
| 9C | NOT USED        |   |   |
| 9D | GAMBIA          | X | B |
| 9E | NOT USED        |   |   |

|    |            |   |   |
|----|------------|---|---|
| 9F | MACEDONIAN | W | O |
| 9G | MALAWLI    | X | B |
| 9H | MOLDAVIAN  | W | O |
| 9I | ANGOLA     | X | B |
| 9J | CHECHNIAN  | I | W |

RELIGION C=CATHOLIC, P=PROTESTANT, I=ISLAMIC, B=BUDDHIST,  
X=UNKNOWN, S=SHINTO, H=HINDU, O=ORTHODOX

RACE W=WHITE, B=BLACK, O=ORIENTAL, A=ARAB  
?=NOT KNOWN

#### NOTES:

THERE WILL BE TWO ETHNIC CODES PER NAME ON THE VSAM FILE TO ALLOW FOR CASES WHERE THE SURNAME IS GERMAN/JEWISH, RUSSIAN/JEWISH, ETC., OR WHERE NAMES ARE USED BY MORE THAN ONE NATIONALITY. FOR INSTANCE, JONES MAY BE WELSH OR ENGLISH, THE SAME WITH EVANS. OHARA MIGHT BE IRISH OR IT MIGHT BE JAPANESE.

SOME COUNTRIES AVOIDED BY INTENTION--- AUSTRALIA, MONACO, LATIN AMERICAN INCLUDED IN SPANISH, BRAZILIAN IN PORTUGUES, ITALIAN, ETC. CARRIBBEAN COUNTRIES ARE BRITISH, FRENCH, PORTUGUES ETC BY SURNAME. SWISS IS MOSTLY ITALIAN, FRENCH, AND GERMAN.

THERE ARE PROBABLY AMERICAN ETHNIC NAMES BY NOW, OTHER THAN INDIAN. THESE ARE GENERALLY THE RESULT OF LOCATIONAL NAMING, E.G., THE SURNAME BERLIN RESULTED FROM THE PLACE HAVING THAT NAME. WE MAY WELL FIND A JOE SECAUCUS LIVING AROUND HERE SOMEDAY. OR MAYBE A JOHN DENVER!

#### CREATION OF ETHNIC MASTER

THE FOLLOWING DESCRIBES THE PROCESS TO ENCODE ETHNICITY ONTO A PRESCRIBED TWO POSITION FIELD ON THE CUSTOMERS MASTER:

STEP 1. CREATE INDIVIDUAL RECORDS FOR AN ETHNIC SURNAME MASTER.

THE FILE 'ETHNIC' HAS 2 TYPES OF RECORDS:

WHERE COLUMN 1 = '\*', COL 2-3 CARRIES AN ETHNIC CODE. THIS CODE IS TO BE APPLIED TO ALL RECORDS FOLLOWING IT UNTIL ANOTHER '\*' RECORD IS ENCOUNTERED.

WHERE COLUMN 1 = ANYTHING BUT ASTERISK, THE RECORD IS:

|       |      |
|-------|------|
| 01-20 | NAME |
| 21-40 | NAME |
| 41-60 | NAME |
| 61-80 | NAME |

THERE ARE FOUR NAMES PER RECORD, EACH OF WHICH WILL RECEIVE THE ETHNIC DESIGNATION OF THE ASTERISK RECORD PRECEDING THEM. WHERE THE SECOND, THIRD, OR FOURTH RECORD CONTAINS SPACES, NO RECORD SHOULD BE CREATED.

STEP 2. SORT THE RESULTING FILE INTO NAME, ETHNIC CODE SEQUENCE.

STEP3. CREATE A VSAM FILE FOR ETHNIC MASTER. PRIMARY KEY = SURNAME. ALLOW FOR 2 ETHNIC CODES PER RECORD, AS DESCRIBED ABOVE.

STEP4. SORT ETHNIC TAPE INTO SURNAME ORDER. THEN REFORMAT THE SORTED TAPE TO ALLOW FOR TWO ETHNIC CODES. WHEN PASSING TAPE, WHERE THERE ARE MORE THAN ONE INSTANCE OF A SURNAME, FILL IN THE SECOND CODE. DON'T WORRY ABOUT INSTANCES OF MORE THAN 2 FOR NOW.

STEP5. ENCODE THE RESIDENTIAL MASTER BY PASSING IT VERSUS THE VSAM ETHNIC MASTER. WHERE THERE IS A MATCH, TAKE THE CODE FROM THE ETHNIC MASTER AND PUT IT IN THE ETHNIC CODE OF THE CUSTOMER

MASTER. WHERE THE MATCH HAS BOTH ETHNIC CODES FILLED IN, USE THE SECOND CODE. THIS ALLOWS US TO PROCESS JEWISH ETHNICS (AT THE EXPENSE OF GERMAN, RUSSIAN, ETC.). THE ORDER MAY BE A CUSTOMER SELECTION.

WHERE THERE IS NO MATCH, TAKE THE LAST 5 POSITIONS OF THE SURNAME AND STORE IT IN A MULTI-DEFINABLE WORKING STORAGE FIELD SO THAT THE PROGRAM CAN ADDRESS THE LAST 2,3,4,OR 5 POSITIONS.

USE THE FOLLOWING SURNAME SUFFIXES TO ASSIGN ETHNICITY TO THE CUSTOMER MASTER. IT MUST BE DONE IN ORDER OF SIZE, THAT IS LAST 5 FIRST, THEN LAST 4, THEN LAST 3. THIS WILL PREVENT A PROBLEM WHERE LAST 2 COULD BE THE SAME AS LAST 5.

|                        |                   |
|------------------------|-------------------|
| IF THE LAST 5 = BROOK, | CODE = 01 ENGLISH |
| FIELD                  | 01 ENGLISH        |
| WORTH                  | 01 ENGLISH        |
| NGTON                  | 01 ENGLISH        |
| GROVE                  | 01 ENGLISH        |
| HOUSE                  | 01 ENGLISH        |
| SHIRE                  | 01 ENGLISH        |
| OTTOM                  | 01 ENGLISH        |
| CRAFT                  | 01 ENGLISH        |
| CROFT                  | 01 ENGLISH        |
| WATER                  | 01 ENGLISH        |
| STONE                  | 01 ENGLISH        |
| LEDGE                  | 01 ENGLISH        |
| COURT                  | 01 ENGLISH        |
| CLIFF                  | 01 ENGLISH        |
| MARSH                  | 01 ENGLISH        |
| TREET                  | 01 ENGLISH        |
| FORTH                  | 01 ENGLISH        |
| SMITH                  | 01 ENGLISH        |
| PHREY                  | 16 WELSH          |
| OSHIN                  | 30 RUSSIAN        |
| EVICH                  | 30 RUSSIAN        |
| OVICH                  | 42 SERBIAN        |
| VITCH                  | 30 RUSSIAN        |
| STEIN                  | 10 GERMAN         |
| STADT                  | 10 GERMAN         |
| SCHKE                  | 10 GERMAN         |
| HORST                  | 10 GERMAN         |
| HUBER                  | 10 GERMAN         |
| HARDT                  | 10 GERMAN         |
| HMIDT                  | 10 GERMAN         |
| CHNER                  | 10 GERMAN         |
| AUSEN                  | 10 GERMAN         |
| INGER                  | 10 GERMAN         |
| HNECK                  | 10 GERMAN         |
| CHEID                  | 10 GERMAN         |
| SCHEN                  | 10 GERMAN         |
| SCHER                  | 10 GERMAN         |
| ACHER                  | 10 GERMAN         |
| TTNER                  | 10 GERMAN         |
| AUBER                  | 10 GERMAN         |
| HAMER                  | 10 GERMAN         |
| EIMER                  | 10 GERMAN         |
| ERICH                  | 10 GERMAN         |
| RECHT                  | 10 GERMAN         |
| REICH                  | 10 GERMAN         |
| FEUER                  | 10 GERMAN         |
| ELMAN                  | 66 JEWISH         |
| VILLE                  | 17 FRENCH         |
| KOSKI                  | 06 FINN           |
| LEHTO                  | 06 FINN           |
| KKOLA                  | 06 FINN           |

|       |               |
|-------|---------------|
| LAHTI | 06 FINN       |
| JARVI | 06 FINN       |
| PELTO | 06 FINN       |
| RANTA | 06 FINN       |
| NIEMI | 06 FINN       |
| VISTO | 06 FINN       |
| AITIS | 26 UKRAINIAN  |
| USKAS | 26 UKRAINIAN  |
| INSKA | 25 LITHUANIAN |
| ARTIS | 25 LITHUANIAN |
| ICIUS | 25 LITHUANIAN |
| STROM | 04 SWEDISH    |
| KVIST | 04 SWEDISH    |
| QVIST | 04 SWEDISH    |
| HJELM | 04 SWEDISH    |
| QUIST | 04 SWEDISH    |
| OULOS | 33 GREEK      |
| CCHIA | 19 ITALIAN    |
| CCHIO | 19 ITALIAN    |
| BERTI | 19 ITALIAN    |
| GHINI | 19 ITALIAN    |
| LIANO | 19 ITALIAN    |
| IANCO | 19 ITALIAN    |
| CHESI | 19 ITALIAN    |
| DONNA | 19 ITALIAN    |
| CHINA | 19 ITALIAN    |
| CHINI | 19 ITALIAN    |
| CHINO | 19 ITALIAN    |
| ATSI  | 33 GREEK      |
| HARIS | 33 GREEK      |
| ARKOS | 33 GREEK      |
| ZITIS | 33 GREEK      |
| OURIS | 33 GREEK      |
| OUNAS | 33 GREEK      |
| OUNIS | 33 GREEK      |
| OULIS | 33 GREEK      |
| TIDES | 33 GREEK      |
| LATOS | 33 GREEK      |
| LOGOS | 33 GREEK      |
| ANNOU | 33 GREEK      |
| OURAS | 33 GREEK      |
| RCHOS | 33 GREEK      |
| APPAS | 33 GREEK      |
| ARVIS | 33 GREEK      |
| POULO | 33 GREEK      |
| LEXIS | 33 GREEK      |
| IADES | 33 GREEK      |
| IANIS | 33 GREEK      |
| POULI | 33 GREEK      |
| OGLOU | 33 GREEK      |
| IOTIS | 33 GREEK      |
| VANIS | 33 GREEK      |
| MAKIS | 33 GREEK      |
| MATSU | 57 JAPANESE   |
| SHIKI | 57 JAPANESE   |
| SHIMA | 57 JAPANESE   |
| SHITA | 57 JAPANESE   |
| TSUBO | 57 JAPANESE   |
| IGAME | 57 JAPANESE   |
| SINGH | 50 INDIAN     |
| SWANI | 50 INDIAN     |
| SWAMI | 50 INDIAN     |
| SWAMY | 50 INDIAN     |
| NDANI | 50 INDIAN     |
| APATI | 50 INDIAN     |
| PALLI | 50 INDIAN     |

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|       |    |         |
|-------|----|---------|
| URTHY | 50 | INDIAN  |
| RHADI | 50 | INDIAN  |
| THULA | 50 | INDIAN  |
| PATHY | 50 | INDIAN  |
| SHNAN | 50 | INDIAN  |
| LLIER | 17 | FRENCH  |
| IGNON | 17 | FRENCH  |
| LETTE | 17 | FRENCH  |
| NNIER | 17 | FRENCH  |
| OISIN | 17 | FRENCH  |
| SSIER | 17 | FRENCH  |
| VOORT | 08 | DUTCH   |
| BRINK | 08 | DUTCH   |
| OUTEN | 08 | DUTCH   |
| UIZEN | 08 | DUTCH   |
| BAKER | 08 | DUTCH   |
| SHANK | 08 | DUTCH   |
| MAYER | 08 | DUTCH   |
| AIKEN | 08 | DUTCH   |
| HOVEN | 08 | DUTCH   |
| PLOEG | 08 | DUTCH   |
| BERGH | 08 | DUTCH   |
| HAKER | 08 | DUTCH   |
| BRUCK | 08 | DUTCH   |
| MAKER | 08 | DUTCH   |
| HUSEN | 08 | DUTCH   |
| INKEL | 08 | DUTCH   |
| IMMER | 08 | DUTCH   |
| UISEN | 08 | DUTCH   |
| ENCIA | 20 | SPANISH |
| VARES | 20 | SPANISH |
| ARRIA | 20 | SPANISH |
| ENDEZ | 20 | SPANISH |
| ENTES | 20 | SPANISH |
| IERDO | 20 | SPANISH |
| IEROS | 20 | SPANISH |
| OUREZ | 20 | SPANISH |
| UAREZ | 20 | SPANISH |
| UESTA | 20 | SPANISH |
| UERRA | 20 | SPANISH |
| UELOS | 20 | SPANISH |
| UENTE | 20 | SPANISH |
| ANDEZ | 20 | SPANISH |
| RATHY | 50 | INDIAN  |
| SKAYA | 30 | RUSSIAN |
| SHEVA | 30 | RUSSIAN |
| CHEVA | 30 | RUSSIAN |
| OWSKI | 22 | POLISH  |
| OWSKA | 22 | POLISH  |
| AZZIZ | 70 | ARAB    |
| HAKIM | 70 | ARAB    |
| ALEEM | 70 | ARAB    |
| ALLAH | 70 | ARAB    |
| KARIM | 70 | ARAB    |
| HALIK | 70 | ARAB    |
| HALIQ | 70 | ARAB    |
| MALIK | 70 | ARAB    |
| AHEEM | 70 | ARAB    |
| RAHIM | 70 | ARAB    |
| KHANI | 70 | ARAB    |
| SAYED | 70 | ARAB    |
| AHMIN | 70 | ARAB    |
| ZADEH | 70 | ARAB    |
| WAHAB | 70 | ARAB    |
| JABER | 70 | ARAB    |
| JABIR | 70 | ARAB    |

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|                       |           |                           |
|-----------------------|-----------|---------------------------|
| MAJID                 | 70        | ARAB                      |
| SALAM                 | 70        | ARAB                      |
| AKOOR                 | 70        | ARAB                      |
| JAWAD                 | 70        | ARAB                      |
| ASSIH                 | 70        | ARAB                      |
| QADIR                 | 70        | ARAB                      |
| OLICK                 | 00        | TO BE DETERMINED 02,66,70 |
| IECKO                 | 00        | TO BE DETERMINED 22       |
| SCHAK                 | 00        | TO BE DETERMINED          |
| VANEK                 | 00        | TO BE DETERMINED          |
| DRCKA                 | 00        | TO BE DETERMINED          |
| DECKI                 | 00        | TO BE DETERMINED          |
| DUCKI                 | 00        | TO BE DETERMINED          |
| TULLA                 | 00        | TO BE DETERMINED 70,34    |
| RULLA                 | 00        | TO BE DETERMINED 70,34    |
| IF THE LAST 4 = FORD, | CODE = 01 | ENGLISH                   |
| ITIS                  | 25        | LITHUANIAN                |
| UNAS                  | 25        | LITHUANIAN                |
| UNIS                  | 25        | LITHUANIAN                |
| ONIS                  | 26        | UKRAINIAN                 |
| CIUS                  | 25        | LITHUANIAN                |
| ADZE                  | 27        | GEORGIAN                  |
| IDZE                  | 27        | GEORGIAN                  |
| VILI                  | 27        | GEORGIAN                  |
| BURY                  | 01        | ENGLISH                   |
| IGHT                  | 01        | ENGLISH                   |
| NESS                  | 01        | ENGLISH                   |
| WALL                  | 01        | ENGLISH                   |
| WOOD                  | 01        | ENGLISH                   |
| COCK                  | 01        | ENGLISH                   |
| CLAY                  | 01        | ENGLISH                   |
| SLEY                  | 01        | ENGLISH                   |
| KLEY                  | 01        | ENGLISH                   |
| BLEY                  | 01        | ENGLISH                   |
| TLEY                  | 01        | ENGLISH                   |
| CHAM                  | 01        | ENGLISH                   |
| COMB                  | 01        | ENGLISH                   |
| OUGH                  | 01        | ENGLISH                   |
| HILL                  | 01        | ENGLISH                   |
| WICK                  | 01        | ENGLISH                   |
| HALL                  | 01        | ENGLISH                   |
| TREE                  | 01        | ENGLISH                   |
| COAT                  | 01        | ENGLISH                   |
| RELL                  | 01        | ENGLISH                   |
| PELL                  | 01        | ENGLISH                   |
| DELL                  | 01        | ENGLISH                   |
| WELL                  | 01        | ENGLISH                   |
| TELL                  | 01        | ENGLISH                   |
| BELL                  | 01        | ENGLISH                   |
| IDGE                  | 01        | ENGLISH                   |
| DALE                  | 01        | ENGLISH                   |
| KOLA                  | 06        | FINN                      |
| OSKI                  | 06        | FINN                      |
| ONEN                  | 06        | FINN                      |
| INEN                  | 06        | FINN                      |
| UNEN                  | 06        | FINN                      |
| IKKO                  | 06        | FINN                      |
| SALU                  | 06        | FINN                      |
| LAAN                  | 06        | FINN                      |
| AARI                  | 06        | FINN                      |
| KIVI                  | 06        | FINN                      |
| KKAN                  | 06        | FINN                      |
| ENKO                  | 26        | UKRAINIAN                 |
| WICZ                  | 22        | POLISH                    |
| WYCZ                  | 22        | POLISH                    |
| CZAK                  | 22        | POLISH                    |



|      |    |           |
|------|----|-----------|
| INSK | 22 | POLISH    |
| IARZ | 22 | POLISH    |
| SZCZ | 22 | POLISH    |
| WIAK | 22 | POLISH    |
| CZYK | 22 | POLISH    |
| SZYN | 22 | POLISH    |
| INKA | 22 | POLISH    |
| RZAK | 22 | POLISH    |
| STRA | 08 | DUTCH     |
| KOOP | 08 | DUTCH     |
| DYKE | 08 | DUTCH     |
| BOOM | 08 | DUTCH     |
| BOER | 08 | DUTCH     |
| HUIS | 08 | DUTCH     |
| SEMA | 08 | DUTCH     |
| VELT | 08 | DUTCH     |
| DONK | 08 | DUTCH     |
| OOST | 08 | DUTCH     |
| OORT | 08 | DUTCH     |
| BEEK | 08 | DUTCH     |
| BRUG | 08 | DUTCH     |
| KEMA | 08 | DUTCH     |
| KILL | 08 | DUTCH     |
| HOUT | 08 | DUTCH     |
| WERK | 08 | DUTCH     |
| VEEN | 08 | DUTCH     |
| IKER | 08 | DUTCH     |
| YKER | 08 | DUTCH     |
| ROEK | 08 | DUTCH     |
| OOTE | 08 | DUTCH     |
| ROOS | 08 | DUTCH     |
| INCK | 08 | DUTCH     |
| ANCK | 08 | DUTCH     |
| VAAG | 08 | DUTCH     |
| BLAD | 04 | SWEDISH   |
| HOLM | 04 | SWEDISH   |
| JELM | 04 | SWEDISH   |
| DAHL | 04 | SWEDISH   |
| LUND | 04 | SWEDISH   |
| GREN | 04 | SWEDISH   |
| STAD | 05 | NORWEGIAN |
| SKOG | 05 | NORWEGIAN |
| OGLU | 31 | TURKISH   |
| ESCU | 37 | ROMANIAN  |
| EANU | 37 | ROMANIAN  |
| SECU | 37 | ROMANIAN  |
| CALU | 37 | ROMANIAN  |
| EAUX | 17 | FRENCH    |
| AULT | 17 | FRENCH    |
| QUET | 17 | FRENCH    |
| INOT | 17 | FRENCH    |
| SARD | 17 | FRENCH    |
| ETTE | 17 | FRENCH    |
| ELLE | 17 | FRENCH    |
| MONT | 17 | FRENCH    |
| LLOT | 17 | FRENCH    |
| LLET | 17 | FRENCH    |
| OUET | 17 | FRENCH    |
| NEUR | 17 | FRENCH    |
| CHET | 17 | FRENCH    |
| ESNE | 17 | FRENCH    |
| OIRE | 17 | FRENCH    |
| BIER | 17 | FRENCH    |
| MIER | 17 | FRENCH    |
| KIER | 17 | FRENCH    |
| LIER | 17 | FRENCH    |



|      |    |         |
|------|----|---------|
| RIER | 17 | FRENCH  |
| TIER | 17 | FRENCH  |
| ZIER | 17 | FRENCH  |
| WALD | 10 | GERMAN  |
| DORF | 10 | GERMAN  |
| THAL | 10 | GERMAN  |
| BACH | 10 | GERMAN  |
| BAUM | 10 | GERMAN  |
| MANN | 10 | GERMAN  |
| HAUS | 10 | GERMAN  |
| ACHT | 10 | GERMAN  |
| EITZ | 10 | GERMAN  |
| RACH | 10 | GERMAN  |
| SLER | 10 | GERMAN  |
| KOPF | 10 | GERMAN  |
| SCHE | 10 | GERMAN  |
| RFER | 10 | GERMAN  |
| ICHT | 10 | GERMAN  |
| FUHR | 10 | GERMAN  |
| FELD | 66 | JEWISH  |
| GHAN | 15 | IRISH   |
| IGAN | 15 | IRISH   |
| IHAN | 15 | IRISH   |
| AHAN | 15 | IRISH   |
| EHAN | 15 | IRISH   |
| AGAN | 15 | IRISH   |
| ERTY | 15 | IRISH   |
| ELLY | 15 | IRISH   |
| UIRE | 15 | IRISH   |
| ONEY | 15 | IRISH   |
| NNEN | 15 | IRISH   |
| NNAN | 15 | IRISH   |
| VICI | 42 | SERB    |
| OVIC | 42 | SERB    |
| ANTE | 19 | ITALIAN |
| ASIO | 19 | ITALIAN |
| ARDI | 19 | ITALIAN |
| ALEO | 19 | ITALIAN |
| ALDI | 19 | ITALIAN |
| CINO | 19 | ITALIAN |
| CINA | 19 | ITALIAN |
| CINI | 19 | ITALIAN |
| CHIO | 19 | ITALIAN |
| CHIA | 19 | ITALIAN |
| CCHI | 19 | ITALIAN |
| DINA | 19 | ITALIAN |
| DINO | 19 | ITALIAN |
| EONE | 19 | ITALIAN |
| ELLO | 19 | ITALIAN |
| FOLO | 19 | ITALIAN |
| FUSO | 19 | ITALIAN |
| FANO | 19 | ITALIAN |
| GLIO | 19 | ITALIAN |
| GAMO | 19 | ITALIAN |
| GGIO | 19 | ITALIAN |
| GGIA | 19 | ITALIAN |
| GLIA | 19 | ITALIAN |
| GELO | 19 | ITALIAN |
| FANI | 19 | ITALIAN |
| IASI | 19 | ITALIAN |
| IASO | 19 | ITALIAN |
| IAMO | 19 | ITALIAN |
| IANO | 19 | ITALIAN |
| ISIO | 19 | ITALIAN |
| IEMO | 19 | ITALIAN |
| IATI | 19 | ITALIAN |

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|      |    |         |
|------|----|---------|
| IATO | 19 | ITALIAN |
| IOLA | 19 | ITALIAN |
| IOTI | 19 | ITALIAN |
| IONE | 19 | ITALIAN |
| LINO | 19 | ITALIAN |
| LINI | 19 | ITALIAN |
| LANO | 19 | ITALIAN |
| LANI | 19 | ITALIAN |
| LUPO | 19 | ITALIAN |
| LUPE | 19 | ITALIAN |
| MICO | 19 | ITALIAN |
| NESE | 19 | ITALIAN |
| NARO | 19 | ITALIAN |
| NATO | 19 | ITALIAN |
| NATI | 19 | ITALIAN |
| OMEQ | 19 | ITALIAN |
| ONIO | 19 | ITALIAN |
| ORSO | 19 | ITALIAN |
| OGIO | 19 | ITALIAN |
| ORDO | 19 | ITALIAN |
| ONSO | 19 | ITALIAN |
| ONZA | 19 | ITALIAN |
| OFFO | 19 | ITALIAN |
| ONTE | 19 | ITALIAN |
| OSIO | 19 | ITALIAN |
| OSIA | 19 | ITALIAN |
| RARO | 19 | ITALIAN |
| RESE | 19 | ITALIAN |
| RISI | 19 | ITALIAN |
| RINO | 19 | ITALIAN |
| RINI | 19 | ITALIAN |
| SCHI | 19 | ITALIAN |
| TINO | 19 | ITALIAN |
| TINA | 19 | ITALIAN |
| TANO | 19 | ITALIAN |
| TORE | 19 | ITALIAN |
| UOMO | 19 | ITALIAN |
| VINI | 19 | ITALIAN |
| VINO | 19 | ITALIAN |
| VINA | 19 | ITALIAN |
| ZUTO | 19 | ITALIAN |
| ZZIO | 19 | ITALIAN |
| UELA | 20 | SPANISH |
| REAL | 20 | SPANISH |
| EREZ | 20 | SPANISH |
| EVES | 20 | SPANISH |
| QUES | 20 | SPANISH |
| EIRA | 20 | SPANISH |
| CITO | 20 | SPANISH |
| TADO | 20 | SPANISH |
| QUEZ | 20 | SPANISH |
| GUEZ | 20 | SPANISH |
| IAGA | 20 | SPANISH |
| AJAL | 20 | SPANISH |
| ALHO | 20 | SPANISH |
| ELHO | 20 | SPANISH |
| ILLA | 20 | SPANISH |
| UENO | 20 | SPANISH |
| VEDA | 20 | SPANISH |
| UERO | 20 | SPANISH |
| EIDA | 20 | SPANISH |
| INHO | 20 | SPANISH |
| AKOS | 33 | GREEK   |
| AKIS | 33 | GREEK   |
| AKAS | 33 | GREEK   |
| IKAS | 33 | GREEK   |

|      |    |          |
|------|----|----------|
| EKIS | 33 | GREEK    |
| EKOS | 33 | GREEK    |
| GIOU | 33 | GREEK    |
| IDES | 33 | GREEK    |
| ETOS | 33 | GREEK    |
| ITOS | 33 | GREEK    |
| LIOU | 33 | GREEK    |
| INOI | 33 | GREEK    |
| SIOU | 33 | GREEK    |
| ATSU | 57 | JAPANESE |
| ASHI | 57 | JAPANESE |
| AKAI | 57 | JAPANESE |
| AIKE | 57 | JAPANESE |
| AOKA | 57 | JAPANESE |
| ASAI | 57 | JAPANESE |
| BARA | 57 | JAPANESE |
| BORI | 57 | JAPANESE |
| BATA | 57 | JAPANESE |
| BUYA | 57 | JAPANESE |
| FANE | 57 | JAPANESE |
| GAWA | 57 | JAPANESE |
| GAKI | 57 | JAPANESE |
| GOMI | 57 | JAPANESE |
| GAMI | 57 | JAPANESE |
| GATA | 57 | JAPANESE |
| GIMA | 57 | JAPANESE |
| GETA | 57 | JAPANESE |
| GAYA | 57 | JAPANESE |
| GURO | 57 | JAPANESE |
| GUMO | 57 | JAPANESE |
| HARA | 57 | JAPANESE |
| HISA | 57 | JAPANESE |
| HIMA | 57 | JAPANESE |
| HIDA | 57 | JAPANESE |
| HOKI | 57 | JAPANESE |
| HAMA | 57 | JAPANESE |
| HIGE | 57 | JAPANESE |
| HIGA | 57 | JAPANESE |
| HIKA | 57 | JAPANESE |
| HIRO | 57 | JAPANESE |
| HIYA | 57 | JAPANESE |
| HIRA | 57 | JAPANESE |
| HATA | 57 | JAPANESE |
| ISHI | 57 | JAPANESE |
| IOKA | 57 | JAPANESE |
| ITSU | 57 | JAPANESE |
| ICHI | 57 | JAPANESE |
| JIMA | 57 | JAPANESE |
| JITA | 57 | JAPANESE |
| JITO | 57 | JAPANESE |
| JAKE | 57 | JAPANESE |
| KAWA | 57 | JAPANESE |
| KAMA | 57 | JAPANESE |
| KIYA | 57 | JAPANESE |
| KUDA | 57 | JAPANESE |
| KUSA | 57 | JAPANESE |
| KEDA | 57 | JAPANESE |
| KURA | 57 | JAPANESE |
| KIDA | 57 | JAPANESE |
| KANO | 57 | JAPANESE |
| KADO | 57 | JAPANESE |
| KAYA | 57 | JAPANESE |
| KUTA | 57 | JAPANESE |
| KADA | 57 | JAPANESE |
| KAMI | 57 | JAPANESE |
| KATA | 57 | JAPANESE |

|      |             |
|------|-------------|
| KUBO | 57 JAPANESE |
| MIZO | 57 JAPANESE |
| MURA | 57 JAPANESE |
| MORI | 57 JAPANESE |
| MOTO | 57 JAPANESE |
| MURI | 57 JAPANESE |
| MADA | 57 JAPANESE |
| MUTA | 57 JAPANESE |
| MIDA | 57 JAPANESE |
| NAKA | 57 JAPANESE |
| NABE | 57 JAPANESE |
| NAGA | 57 JAPANESE |
| NOBU | 57 JAPANESE |
| NUMA | 57 JAPANESE |
| NEKO | 57 JAPANESE |
| OIKE | 57 JAPANESE |
| OSHI | 57 JAPANESE |
| OOKA | 57 JAPANESE |
| SAKA | 57 JAPANESE |
| SARA | 57 JAPANESE |
| SAKI | 57 JAPANESE |
| SUKA | 57 JAPANESE |
| SUNO | 57 JAPANESE |
| SAWA | 57 JAPANESE |
| SUDA | 57 JAPANESE |
| SHIO | 57 JAPANESE |
| SUTA | 57 JAPANESE |
| SUJI | 57 JAPANESE |
| TADA | 57 JAPANESE |
| TSUO | 57 JAPANESE |
| TSUI | 57 JAPANESE |
| TAKE | 57 JAPANESE |
| UCHI | 57 JAPANESE |
| USHI | 57 JAPANESE |
| UKAI | 57 JAPANESE |
| UOKA | 57 JAPANESE |
| WARA | 57 JAPANESE |
| WATA | 57 JAPANESE |
| WORD | 57 JAPANESE |
| YAMA | 57 JAPANESE |
| YAGI | 57 JAPANESE |
| YODA | 57 JAPANESE |
| YAWA | 57 JAPANESE |
| YASU | 57 JAPANESE |
| ZAKI | 57 JAPANESE |
| ZAWA | 57 JAPANESE |
| ZUMI | 57 JAPANESE |
| ZUME | 57 JAPANESE |
| ZEKI | 57 JAPANESE |
| ZUKI | 57 JAPANESE |
| ZAKA | 57 JAPANESE |
| ZUNA | 57 JAPANESE |
| SUKU | 57 JAPANESE |
| SIKA | 57 JAPANESE |
| NAGI | 57 JAPANESE |
| KIBA | 57 JAPANESE |
| NAKU | 57 JAPANESE |
| WAKI | 57 JAPANESE |
| JAKA | 57 JAPANESE |
| SAKO | 57 JAPANESE |
| TODA | 57 JAPANESE |
| YORA | 57 JAPANESE |
| SUMI | 57 JAPANESE |
| KARI | 57 JAPANESE |
| ORII | 57 JAPANESE |
| TAKA | 57 JAPANESE |

|      |                     |                    |
|------|---------------------|--------------------|
| HORI | 57 JAPANESE         |                    |
| RWAL | 50 INDIAN           |                    |
| UPTA | 50 INDIAN           |                    |
| WANI | 50 INDIAN           |                    |
| AJAN | 50 INDIAN           |                    |
| DDIN | 70 ARAB             |                    |
| AZIZ | 70 ARAB             |                    |
| ZEEZ | 70 ARAB             |                    |
| HAQQ | 70 ARAB             |                    |
| ALIB | 70 ARAB             |                    |
| HADI | 70 ARAB             |                    |
| HAFI | 70 ARAB             |                    |
| ZAID | 70 ARAB             |                    |
| DDAD | 70 ARAB             |                    |
| LLAH | 70 ARAB             |                    |
| LEEM | 70 ARAB             |                    |
| OUDA | 70 ARAB             |                    |
| OURY | 70 ARAB             |                    |
| POUR | 70 ARAB             |                    |
| MMAD | 70 ARAB             |                    |
| ALIM | 70 ARAB             |                    |
| AFAT | 70 ARAB             |                    |
| TAFA | 70 ARAB             |                    |
| KHAN | 70 ARAB             |                    |
| DZIN | 30 RUSSIAN          |                    |
| STOY | 30 RUSSIAN          |                    |
| OYAN | 30 RUSSIAN          |                    |
| ODNY | 30 RUSSIAN          |                    |
| YEVA | 30 RUSSIAN          |                    |
| ROVA | 30 RUSSIAN          |                    |
| MOVA | 30 RUSSIAN          |                    |
| LOVA | 30 RUSSIAN          |                    |
| DKIN | 30 RUSSIAN          |                    |
| VKIN | 30 RUSSIAN          |                    |
| ZKIN | 30 RUSSIAN          |                    |
| TKIN | 30 RUSSIAN          |                    |
| HKIN | 30 RUSSIAN          |                    |
| LKIN | 30 RUSSIAN          |                    |
| AKIN | 30 RUSSIAN          |                    |
| CHEV | 30 RUSSIAN          |                    |
| OREV | 30 RUSSIAN          |                    |
| UREV | 30 RUSSIAN          |                    |
| AREV | 30 RUSSIAN          |                    |
| EREV | 30 RUSSIAN          |                    |
| VRIN | 30 RUSSIAN          |                    |
| KHIN | 30 RUSSIAN          |                    |
| OVKO | 30 RUSSIAN          |                    |
| SKIN | 66 JEWISH           |                    |
| RKIN | 66 JEWISH           |                    |
| PKIN | 66 JEWISH           |                    |
| EESE | 16 WELSH            |                    |
| LOYD | 16 WELSH            |                    |
| SCIK | 00 TO BE DETERMINED | 30, 13             |
| VITS | 00 TO BE DETERMINED | 66, 12, 30         |
| CZEK | 00 TO BE DETERMINED | 13, 22             |
| CZIK | 00 TO BE DETERMINED | 22, 30             |
| NIAK | 00 TO BE DETERMINED | 22, 30, 14         |
| MIAK | 00 TO BE DETERMINED |                    |
| CIAK | 00 TO BE DETERMINED |                    |
| WIAK | 00 TO BE DETERMINED | 22                 |
| CHAK | 00 TO BE DETERMINED | 22, 30             |
| ASKO | 00 TO BE DETERMINED |                    |
| OLTE | 00 TO BE DETERMINED |                    |
| ICKI | 00 TO BE DETERMINED | 22                 |
| METZ | 00 TO BE DETERMINED | 10, 66, 11, 40, 22 |
| ASKA | 00 TO BE DETERMINED |                    |

20

20

|                      |                           |
|----------------------|---------------------------|
| NIEC                 | 00 TO BE DETERMINED       |
| USKA                 | 00 TO BE DETERMINED       |
| ECKI                 | 00 TO BE DETERMINED       |
| USKA                 | 00 TO BE DETERMINED       |
| SKYJ                 | 00 TO BE DETERMINED 30,66 |
| IF THE LAST 3 = SKY, | CODE = 30 RUSSIAN         |
| NIK                  | 30 RUSSIAN                |
| NEV                  | 30 RUSSIAN                |
| SKI                  | 22 POLISH                 |
| ACZ                  | 22 POLISH                 |
| ZYK                  | 22 POLISH                 |
| ZDZ                  | 22 POLISH                 |
| YDZ                  | 22 POLISH                 |
| CYK                  | 22 POLISH                 |
| IIT                  | 06 FINN                   |
| MAA                  | 06 FINN                   |
| PAA                  | 06 FINN                   |
| AGI                  | 57 JAPANESE               |
| HOF                  | 10 GERMAN                 |
| SCH                  | 10 GERMAN                 |
| LTZ                  | 10 GERMAN                 |
| NDT                  | 10 GERMAN                 |
| ITZ                  | 66 JEWISH                 |
| OTZ                  | 66 JEWISH                 |
| SMA                  | 08 DUTCH                  |
| DYK                  | 08 DUTCH                  |
| LOF                  | 04 SWEDISH                |
| IAN                  | 29 ARMENIAN               |
| EAU                  | 17 FRENCH                 |
| OIS                  | 17 FRENCH                 |
| LEY                  | 01 ENGLISH                |
| TON                  | 01 ENGLISH                |
| DIS                  | 33 GREEK                  |
| ANU                  | 37 ROMANIAN               |
| ZZO                  | 19 ITALIAN                |
| ZZA                  | 19 ITALIAN                |
| ZZI                  | 19 ITALIAN                |
| CCO                  | 19 ITALIAN                |
| CCI                  | 19 ITALIAN                |
| CCA                  | 19 ITALIAN                |
| SSO                  | 19 ITALIAN                |
| SSI                  | 19 ITALIAN                |
| SSA                  | 19 ITALIAN                |
| TTO                  | 19 ITALIAN                |
| TTI                  | 19 ITALIAN                |
| TTA                  | 19 ITALIAN                |
| LLI                  | 19 ITALIAN                |
| ONE                  | 19 ITALIAN                |
| GNA                  | 19 ITALIAN                |
| GNO                  | 19 ITALIAN                |
| GNI                  | 19 ITALIAN                |
| GGI                  | 19 ITALIAN                |
| INO                  | 19 ITALIAN                |
| INI                  | 19 ITALIAN                |
| UEZ                  | 20 SPANISH                |
| EJO                  | 20 SPANISH                |
| DEZ                  | 20 SPANISH                |
| REZ                  | 20 SPANISH                |
| TEZ                  | 20 SPANISH                |
| NEZ                  | 20 SPANISH                |
| OKI                  | 57 JAPANESE               |
| OJI                  | 57 JAPANESE               |
| TSU                  | 57 JAPANESE               |
| UKI                  | 57 JAPANESE               |
| UME                  | 57 JAPANESE               |
| SUO                  | 57 JAPANESE               |

|     |    |                           |
|-----|----|---------------------------|
| WAI | 57 | JAPANESE                  |
| DYA | 50 | INDIAN                    |
| VEE | 23 | ESTONIAN                  |
| DEH | 70 | ARAB                      |
| MEH | 70 | ARAB                      |
| LEH | 70 | ARAB                      |
| NEH | 70 | ARAB                      |
| MED | 70 | ARAB                      |
| AWY | 70 | ARAB                      |
| YED | 70 | ARAB                      |
| YAD | 70 | ARAB                      |
| DIQ | 70 | ARAB                      |
| SIF | 70 | ARAB                      |
| LIB | 70 | ARAB                      |
| HIB | 70 | ARAB                      |
| BIB | 70 | ARAB                      |
| OUB | 70 | ARAB                      |
| ZIZ | 70 | ARAB                      |
| HAB | 70 | ARAB                      |
| WAJ | 50 | INDIAN                    |
| RIS | 17 | FRENCH                    |
| NYI | 12 | HUNGARIAN                 |
| WIE | 02 | SCOTCH                    |
| LHO | 21 | PORTUGUESE                |
| NHA | 21 | PORTUGUESE                |
| VIC | 42 | SERBIAN                   |
| ZKY | 00 | TO BE DETERMINED 30,66,26 |
| CAK | 00 | TO BE DETERMINED          |
| LAK | 00 | TO BE DETERMINED          |
| LUK | 00 | TO BE DETERMINED          |
| LIK | 00 | TO BE DETERMINED          |
| USH | 00 | TO BE DETERMINED          |
| UCH | 00 | TO BE DETERMINED          |
| REW | 00 | TO BE DETERMINED          |
| CEK | 00 | TO BE DETERMINED          |
| IEC | 00 | TO BE DETERMINED          |
| CIK | 00 | TO BE DETERMINED 30,22    |
| ASH | 00 | TO BE DETERMINED 66,02    |
| US  | 00 | TO BE DETERMINED          |
| UD  | 00 | TO BE DETERMINED          |
| IC  | 00 | TO BE DETERMINED          |
| IK  | 00 | TO BE DETERMINED          |

AFTER THE SUFFIX MATCHES ARE COMPLETE, IF STILL UNMATCHED, REPEAT THE PROCESS USING THE PREFIX (THE FIRST 5 WILL HAVE TO BE ISOLATED). AS WITH SUFFIX, IF NO MATCH WITH 5, REPEAT WITH 4, THEN 3, THEN 2.

|                  |       |    |         |
|------------------|-------|----|---------|
| IF THE FIRST 5 = | VOORT | 08 | DUTCH   |
|                  | VANDE | 08 | DUTCH   |
|                  | SCHOO | 08 | DUTCH   |
|                  | SMITH | 01 | ENGLISH |
|                  | JONES | 01 | ENGLISH |
|                  | DAVIS | 01 | ENGLISH |
|                  | FLEUR | 17 | FRENCH  |
|                  | MOHAM | 70 | ARAB    |
|                  | MUHAM | 70 | ARAB    |
|                  | ABDEL | 70 | ARAB    |
|                  | ABDUL | 70 | ARAB    |
|                  | ABDAL | 70 | ARAB    |
|                  | ABDOU | 70 | ARAB    |
|                  | ABDER | 70 | ARAB    |
|                  | ABDOL | 70 | ARAB    |
|                  | QUINT | 20 | SPANISH |
|                  | PEREZ | 20 | SPANISH |
|                  | LOPEZ | 20 | SPANISH |
|                  | RAMOS | 20 | SPANISH |

23

|       |    |           |
|-------|----|-----------|
| MUNOZ | 20 | SPANISH   |
| ACEVE | 20 | SPANISH   |
| ACOST | 20 | SPANISH   |
| GARCI | 20 | SPANISH   |
| ALCAZ | 20 | SPANISH   |
| AMIGO | 20 | SPANISH   |
| GOMES | 20 | SPANISH   |
| GOMEZ | 20 | SPANISH   |
| AVILA | 20 | SPANISH   |
| AYALA | 20 | SPANISH   |
| BUENO | 20 | SPANISH   |
| DIEGO | 20 | SPANISH   |
| GUZMA | 20 | SPANISH   |
| RIVAS | 20 | SPANISH   |
| NUNEZ | 20 | SPANISH   |
| KYRIA | 33 | GREEK     |
| APOST | 33 | GREEK     |
| KATSI | 33 | GREEK     |
| ANAGN | 33 | GREEK     |
| ANAST | 33 | GREEK     |
| HATZI | 33 | GREEK     |
| THEOD | 33 | GREEK     |
| PAPPA | 33 | GREEK     |
| BHATT | 50 | INDIAN    |
| ANAND | 50 | INDIAN    |
| ANANT | 50 | INDIAN    |
| SURUJ | 50 | INDIAN    |
| BREIT | 10 | GERMAN    |
| REICH | 10 | GERMAN    |
| CEDER | 04 | SWEDISH   |
| BJORN | 05 | NORWEGIAN |
| SODER | 05 | NORWEGIAN |
| AMUND | 05 | NORWEGIAN |
| THORS | 05 | NORWEGIAN |
| LEHTO | 06 | FINN      |
| KOSKI | 06 | FINN      |
| NIEMI | 06 | FINN      |
| OSTER | 08 | DUTCH     |
| OOSTE | 08 | DUTCH     |
| DAVID | 66 | JEWISH    |
| MACCH | 19 | ITALIAN   |
| MACCI | 19 | ITALIAN   |
| DOLCE | 19 | ITALIAN   |
| ANGIO | 19 | ITALIAN   |
| VONGS | 61 | KHMER     |
| HASHI | 57 | JAPANESE  |
| KASHI | 57 | JAPANESE  |
| KATSU | 57 | JAPANESE  |
| KISHI | 57 | JAPANESE  |
| KOSHI | 57 | JAPANESE  |
| MATSU | 57 | JAPANESE  |
| MISHI | 57 | JAPANESE  |
| NISHI | 57 | JAPANESE  |
| SHIMA | 57 | JAPANESE  |
| SHIGE | 57 | JAPANESE  |
| SHIRA | 57 | JAPANESE  |
| TACHI | 57 | JAPANESE  |
| TSUCH | 57 | JAPANESE  |
| YOSHI | 57 | JAPANESE  |
| BHAK  | 50 | INDIAN    |
| JAYA  | 50 | INDIAN    |
| BHOO  | 50 | INDIAN    |
| BHAG  | 50 | INDIAN    |
| RAJA  | 50 | INDIAN    |
| PEIX  | 20 | SPANISH   |
| BAEZ  | 20 | SPANISH   |

IF FIRST 4 =

23



|      |    |           |
|------|----|-----------|
| CRUZ | 20 | SPANISH   |
| DIAZ | 20 | SPANISH   |
| RIOS | 20 | SPANISH   |
| RUIZ | 20 | SPANISH   |
| JUAN | 20 | SPANISH   |
| WHIT | 01 | ENGLISH   |
| GOOD | 01 | ENGLISH   |
| HOLM | 04 | SWEDISH   |
| DAHL | 04 | SWEDISH   |
| BLOM | 04 | SWEDISH   |
| LUND | 04 | SWEDISH   |
| SUND | 04 | SWEDISH   |
| TORK | 05 | NORWEGIAN |
| KIVI | 06 | FINN      |
| KOIV | 06 | FINN      |
| LIUK | 06 | FINN      |
| MYLL | 06 | FINN      |
| PIIR | 06 | FINN      |
| PIIS | 06 | FINN      |
| PIIK | 06 | FINN      |
| RANT | 06 | FINN      |
| PULK | 06 | FINN      |
| SEPP | 06 | FINN      |
| TIKK | 06 | FINN      |
| BHAN | 50 | INDIAN    |
| BHAT | 50 | INDIAN    |
| BEN  | 66 | JEWISH    |
| FELD | 66 | JEWISH    |
| IBN  | 70 | ARAB      |
| ABOU | 70 | ARAB      |
| ABED | 70 | ARAB      |
| ABDO | 70 | ARAB      |
| ABDA | 70 | ARAB      |
| ABDL | 70 | ARAB      |
| ABDU | 70 | ARAB      |
| FARH | 70 | ARAB      |
| SHAH | 70 | ARAB      |
| DES  | 17 | FRENCH    |
| BEAU | 17 | FRENCH    |
| FITZ | 15 | IRISH     |
| TEN  | 08 | DUTCH     |
| TER  | 08 | DUTCH     |
| VAN  | 08 | DUTCH     |
| VAND | 08 | DUTCH     |
| STEE | 08 | DUTCH     |
| HUIS | 08 | DUTCH     |
| BROE | 08 | DUTCH     |
| BOER | 08 | DUTCH     |
| HOOG | 08 | DUTCH     |
| VEEN | 08 | DUTCH     |
| VER  | 08 | DUTCH     |
| VRIE | 08 | DUTCH     |
| ROOS | 08 | DUTCH     |
| CHEV | 17 | FRENCH    |
| JEAN | 17 | FRENCH    |
| DEN  | 08 | DUTCH     |
| GIAM | 19 | ITALIAN   |
| GIAN | 19 | ITALIAN   |
| GIOR | 19 | ITALIAN   |
| SCIA | 19 | ITALIAN   |
| SCIO | 19 | ITALIAN   |
| SCAL | 19 | ITALIAN   |
| SCAR | 19 | ITALIAN   |
| MAC  | 02 | SCOTCH    |
| PAPA | 33 | GREEK     |
| KOUR | 33 | GREEK     |

24

24

25

|      |    |               |
|------|----|---------------|
| KOUL | 33 | GREEK         |
| EFTH | 33 | GREEK         |
| HATZ | 33 | GREEK         |
| IOAN | 33 | GREEK         |
| KOUT | 33 | GREEK         |
| THEO | 33 | GREEK         |
| WEIS | 10 | GERMAN        |
| BREI | 10 | GERMAN        |
| EICH | 10 | GERMAN        |
| EICK | 10 | GERMAN        |
| EDEL | 10 | GERMAN        |
| STEI | 10 | GERMAN        |
| STEU | 10 | GERMAN        |
| STOE | 10 | GERMAN        |
| BRAU | 10 | GERMAN        |
| SCHW | 10 | GERMAN        |
| REIN | 10 | GERMAN        |
| VON  | 10 | GERMAN        |
| DEIT | 10 | GERMAN        |
| HEIM | 10 | GERMAN        |
| HEIN | 10 | GERMAN        |
| MUTH | 50 | INDIAN        |
| OPPE | 08 | DUTCH         |
| OBER | 10 | GERMAN        |
| THEI | 10 | GERMAN        |
| PICC | 19 | ITALIAN       |
| PIZZ | 19 | ITALIAN       |
| OGUN | 85 | BLACK AFRICAN |
| OKWU | 85 | BLACK AFRICAN |
| ISHI | 57 | JAPANESE      |
| FUJI | 57 | JAPANESE      |
| FUKA | 57 | JAPANESE      |
| FUKU | 57 | JAPANESE      |
| HIRA | 57 | JAPANESE      |
| HIRO | 57 | JAPANESE      |
| HIGA | 57 | JAPANESE      |
| HORI | 57 | JAPANESE      |
| ICHI | 57 | JAPANESE      |
| KAJI | 57 | JAPANESE      |
| KAWA | 57 | JAPANESE      |
| KIJI | 57 | JAPANESE      |
| KITA | 57 | JAPANESE      |
| KURA | 57 | JAPANESE      |
| UCHI | 57 | JAPANESE      |
| YAMA | 57 | JAPANESE      |
| YOKO | 57 | JAPANESE      |
| YASU | 57 | JAPANESE      |
| MIYA | 57 | JAPANESE      |
| NAGA | 57 | JAPANESE      |
| NAKA | 57 | JAPANESE      |
| OSHI | 57 | JAPANESE      |
| SAKA | 57 | JAPANESE      |
| SUGI | 57 | JAPANESE      |
| TAKA | 57 | JAPANESE      |
| TAKE | 57 | JAPANESE      |
| TAKI | 57 | JAPANESE      |
| TOKU | 57 | JAPANESE      |
| SZA  | 12 | HUNGARIAN     |
| SZE  | 12 | HUNGARIAN     |
| SZI  | 12 | HUNGARIAN     |
| SZU  | 12 | HUNGARIAN     |
| BHA  | 50 | INDIAN        |
| BHU  | 50 | INDIAN        |
| DHA  | 50 | INDIAN        |
| DHU  | 50 | INDIAN        |
| GOP  | 50 | INDIAN        |

IF FIRST 3 =

25

|     |    |               |
|-----|----|---------------|
| SRI | 50 | INDIAN        |
| ABD | 70 | ARAB          |
| AHM | 70 | ARAB          |
| ABU | 70 | ARAB          |
| AL  | 70 | ARAB          |
| EL  | 70 | ARAB          |
| KHA | 70 | ARAB          |
| GHO | 70 | ARAB          |
| DU  | 17 | FRENCH        |
| AAL | 08 | DUTCH         |
| AAN | 08 | DUTCH         |
| AAS | 08 | DUTCH         |
| ROO | 08 | DUTCH         |
| POE | 08 | DUTCH         |
| WOE | 08 | DUTCH         |
| OOS | 08 | DUTCH         |
| DYK | 08 | DUTCH         |
| POI | 17 | FRENCH        |
| LE  | 17 | FRENCH        |
| LO  | 19 | ITALIAN       |
| XIA | 53 | CHINESE       |
| DA  | 21 | PORTUGUESE    |
| SZY | 22 | POLISH        |
| APJ | 16 | WELSH         |
| MCB | 15 | IRISH         |
| MCD | 15 | IRISH         |
| MCC | 15 | IRISH         |
| MCG | 15 | IRISH         |
| MCM | 15 | IRISH         |
| MC  | 15 | IRISH         |
| TCH | 30 | RUSSIAN       |
| ZHI | 30 | RUSSIAN       |
| XAN | 33 | GREEK         |
| SCH | 10 | GERMAN        |
| SAE | 10 | GERMAN        |
| TIE | 10 | GERMAN        |
| EHR | 10 | GERMAN        |
| ECK | 10 | GERMAN        |
| ROE | 10 | GERMAN        |
| RUE | 10 | GERMAN        |
| NEU | 10 | GERMAN        |
| BEI | 10 | GERMAN        |
| REI | 10 | GERMAN        |
| WEI | 10 | GERMAN        |
| WUE | 10 | GERMAN        |
| WOJ | 22 | POLISH        |
| HRD | 13 | CZECH         |
| HRU | 13 | CZECH         |
| HRB | 13 | CZECH         |
| GIU | 19 | ITALIAN       |
| OKY | 85 | BLACK AFRICAN |
| YLI | 06 | FINN          |
| YLA | 06 | FINN          |
| AAV | 06 | FINN          |
| LAA | 06 | FINN          |
| MAA | 06 | FINN          |
| PAA | 06 | FINN          |
| RII | 06 | FINN          |
| SII | 06 | FINN          |
| WII | 06 | FINN          |
| PF  | 10 | GERMAN        |
| BJ  | 04 | SWEDISH       |
| O   | 15 | IRISH         |
| O'  | 15 | IRISH         |
| MB  | 85 | BLACK         |

26

IF FIRST 2 POS =

26

27

# ETHNIC DESCRIPTION

- 00 UNKNOWN - THIS CODE IS EITHER PRE-ASSIGNED TO UNCLASSIFIED NAMES THAT HAVE BEEN RESEARCHED (ALREADY ON FILE), PRE-STORED TO ENABLE RULES TO FUNCTION CLEANLY, OR ASSIGNED AT RUN TIME TO NAMES UNMATCHED IN EITHER RULES OR EXCEPTION TABLE. NO RELIGION NOR RACE CAN BE INFERRED.
- 01 ENGLISH - ANGLO-SAXON, NOT JUTES. SOME CELTIC BRITONS. ENGLISH IS A GERMANIC LANGUAGE. MIXED WITH OTHER NORSEMEN ( A.K.A. NORMAN). PRIMARILY PROTESTANT.  
NOTE: ISLE OF MAN PEOPLE SPEAK 'MANX'  
PEOPLE FROM CORNWALL SPEAK 'CORNISH'.  
NOTE: COMPETITORS USE THE ETHNIC GROUP 'BRITISH', WHICH IS ERRONEOUS. BRITISH MEANS PEOPLE FROM THE BRITISH COMMONWEALTH, WHICH MEANS ENGLAND, SCOTLAND, IRELAND, WALES, BERMUDA, CANADA, AUSTRALIA, AND MANY OTHER PLACES. COMPETITORS DON'T HAVE 'ENGLISH', AND MUST REDUNDANTLY COUNT SCOTS, ETC., IN THEIR BRITISH COUNTS. MORE LIKELY, THEY USE 'BRITISH' AS A DEFAULT FOR NAMES THEY CAN'T MATCH SO THEY DUMP THEM IN BRITISH, MAKING IT APPEAR THAT THEY CAN IDENTIFY FAR MORE NAMES THAN THEY REALLY CAN.
- 02 SCOTTISH - THE JUTES, FROM JUTLAND, LATER BASTARDIZED TO SCUTLAND AND THEN SCOTLAND. LOTS OF 'MAC' PREFIXES BUT SOME ARE 'MC'. MANY NAMES SAME AS ENGLISH, SOME IRISH. THE LANGUAGE SCOTS IS AN ENGLISH LANGUAGE WHILE SCOTTISH GAELIC IS THE GAELIC LANGUAGE SPOKEN THERE. NAMES DERIVE FROM BOTH. 'SCOTCH IRISH' ARE ESSENTIALLY SCOTCH ETHNIC, LIVING IN N. IRELAND. THERE ARE ABOUT 20 MILLION SCOTCH IN U.S.A.
- 03 DANISH - SCANDINAVIAN. SPEAK DANISH, A GERMANIC LANGUAGE. PRIMARILY FROM DENMARK. THE PORTION OF ENGLAND IN PRE-CONQUEST UNDER 'DANELAW' ALSO HAD DANISH NAMES USED. RACINE, WI. AND ELKHORN, IA. HAVE LOTS OF DANES. ALSO, LOS ANGELES AND CHICAGO.
- 04 SWEDISH - LOTS IN CHICAGO, MIDWEST. ALSO SCANDINAVIAN. SPEAK SWEDISH, A GERMANIC LANGUAGE. A NATIONAL CAMPAIGN TO ELIMINATE WARLIKE AND BRUTAL NAMING CONVENTIONS HAS FOR THE MOST PART BEEN SUCESSFUL. MODERN DAY SWEDES HAVE GENTLER NAMES THAN THEIR PREDECESSORS. WHEN ONE EXAMINES THE SURNAMES USED IN COMPETITOR OFFERINGS, ONE FINDS MANY ACCURATELY IDENTIFIED HISTORIC SWEDISH NAMES. UNFORTUNATELY, NO ONE USES THEM TODAY. SWEDES MIGRATED TO THE U.S. FROM SWEDEN, BUT ALSO FROM PARTS OF FINLAND WHERE THEY HAVE BEEN FOR CENTURIES. SIMILARLY A SMALL PORTION OF SWEDEN SPEAKS AND IS FINNISH.
- 05 NORWEGIAN - ALSO SCANDINAVIAN. SPEAK NORWEGIAN, A GERMANIC LANGUAGE. A SMALL AREA OF NORWAY SPEAKS FINNISH.
- 06 FINNISH - FINNO-UGRIC. THE SUFFIX 'NEN' MEANS OFFSPRING OF. THE SUFFIXES 'OLA', 'YLA', AND 'KOSKI' MEAN LOWER, UPPER, AND MIDDLE, RESPECTIVELY. MOST SPEAK FINNISH, BUT SOME AREAS OF FINLAND SPEAK SWEDISH

27

- 07 ICELANDIC - SCANDINAVIAN. HAVE OWN UNIQUE ICELANDIC LANGUAGE.
- 08 DUTCH - SPEAK DUTCH WITH OCCASIONAL FRISIAN. BOTH ARE GERMANIC
- 09 BELGIAN - FLEMISH AND WALLOON. LANGUAGE IS THE GERMANIC FLEMISH, BUT SOME SPEAK FRENCH, A ROMANCE LANGUAGE. THE WALLOONS WERE A CELTIC PEOPLE IN SOUTHEAST BELGIUM ADJACENT TO FRANCE. FAR ENOUGH BACK, THE ORIGINS ARE SIMILAR TO THE WELSH IN WALES.
- 10 GERMAN - AMISH ARE SOUTHERN GERMAN, PENN. DUTCH ARE GERMAN SPEAK GERMAN. SOME SMALL AREAS SPEAK WENDISH, A CZECH DERIVED LANGUAGE.
- 11 AUSTRIAN -MOSTLY GERMANIC.
- 12 HUNGARIAN - EASTERN FINNO-UGRIC, ALONG WITH FINLAND AND ESTONIA THE HUNGARIAN LANGUAGE IS ALSO RELATED TO BOTH FINN AND ESTONIAN. THERE WERE 1.8 MILLION HUNGARIANS IN THE U.S.A. AS OF THE 1980 CENSUS.
- 13 CZECH - CZECH, NOT CZECHOSLOVAKIAN, WHICH WAS A NATIONALITY WITH MOSTLY CZECHS AND WESTERN SLAVS. OTHER ETHNIC LISTS ARE ERRONEOUS IN THIS REGARD. MAJOR MIGRATIONS TO TEXAS AND MIDWESTERN CITIES LIKE CHICAGO OCCURRED. BOHEMIA, NY AND MILLIGAN, NE ARE PREDOMINANT CZECH.
- 14 SLOVAK - THE WESTERN SLOVAKS WERE IN E. CZECHOSLOVAKIA, OTHERS WERE TO BE FOUND HERE AND THERE DOWN THRU EUROPE. THE NAME YUGOSLAVIA, IN FACT, MEANT SOUTHERN SLAV. THE SLOVAK PEOPLE SPEAK SLOVAKIAN. SETTLING MOSTLY IN THE NE AND MIDWEST, THERE ARE BETWEEN 1 AND 2 MILLION IN THE U.S.A. RELIGIONS INCLUDE CATHOLIC, LUTHERAN, AND SOME CALVINIST.
- 15 IRISH - GAELIC. MANY NAMES OVERLAP WITH THE ENGLISH AND ALSO THE SCOTTISH AND WELSH. THE PREFIX 'O' MEANS GRANDSON OF, WHILE THE PREFIX 'MC' MEANS SON OF. IRISH, A GAELIC DERIVATIVE OF CELTIC GOIDALIC, IS THE LANGUAGE.
- 16 WELSH -THERE ARE ONLY ABOUT 1000 LEGITIMATE WELSH SURNAMES, AND MANY OF THESE OVERLAP WITH THE IRISH, BRITISH, AND SCOTCH. THE PREFIX ORIGINAL PREFIX 'AP', SINCE SHORTENED TO 'P', MEANS SON OF. THUS, NAMES SUCH AS 'PROBERT' AND 'PRICHARD' RESULT IN UNIQUELY WELSH NAMES. WELSH IS THE LANGUAGE.
- 17 FRENCH - THE PREFIXES 'DU, DE, DELA, AND DES' ARE MEAN 'FROM'. FRENCH IS SPOKEN WITH A LITTLE PROVENÇAL IN S. FRANCE.
- 19 ITALIAN -SPEAK THE ROMANCE LANGUAGE ITALIAN, EXCEPT FOR IN SARDINIA, WHERE SARDINIAN IS SPOKEN. INORDINATE NUMBER OF DESCRIPTIVE SURNAMES, INCLUDING, FOR EXAMPLE:  
 RED - ROSSI, ROSSETTI, ROSSETTO, ROSSINI  
 GRAY- PARDO  
 CURLY- RICCIO, RIZZO  
 SHORT- BASSO, CURCIO, PICCOLO  
 TALL - LAGO  
 DARK - MORELLI, MORETTA, MORETTI, MORENO  
 LIGHT- BIANCO, LOBIANCO, BIANCHI  
 NO HAIR- LUNA  
 HAIRY - CESARIO  
 SHORT HAIR- CARUSO  
 LEFT HANDED - MANCINI, MANCUSO  
 UGLY HEAD - TESTA, CAPONE, CAPUTO, MALATESTA  
 UGLY MOUTH - BOCCACIO

CHEERFUL - ALLEGRETTI  
 GOOD FRIEND - AMATO  
 GOODNESS - BONO, BUONO, BUONOMO,  
 GOOD GUIDO - BUONOGUIDI  
 SERIOUS - SERRO  
 COURTEOUS - GENTILE, GRAZIANO  
 LITTLE - NAMES ENDING IN ELLO, ILLO, INO, INI, ETTI, ETT  
 BIG - NAMES ENDING IN ONE  
 BIG/BAD - NAMES ENDING IN ACCIO  
 FROM SARDINIA - NAMES ENDING IN DDA AND DDO  
 DESCENDENT OF - NAMES ENDING IN UCCI  
 AND THERE ARE A WHOLE LOT OF LIFE-FORM SURNAMES:  
 ROOSTER- GALLO, GALLIANI  
 SNAIL - IZZO, LOIZZO  
 PHEASANT - FASANO  
 GNATS - MUSSOLINI, MUSCARELLO  
 LARK - CALIENTO  
 LADYBUG - MARINELLO  
 PLUS THE USUAL PLACE NAMES LIKE ROMANO, ETC

- 20 HISPANIC - THE SPANISH SPEAKING, BUT NOT PORTUGUESE. INCLUDES SPAIN AND MOST OF LATIN AMERICA, BUT NOT BRAZIL. ALMOST 25% OF THE HISPANIC POPULATION IN THE U.S.A. HAVE ONLY 14 SURNAMES. THESE ARE GONZALEZ, GARCIA, LOPEZ, RIVERA, HERNANDEZ, PEREZ, SANCHEZ, TORRES, ORTIZ, GOMEZ, ALVAREZ, RODRIGUEZ, FERNANDEZ, AND MARTINEZ.
- 21 PORTUGUESE-SPEAK PORTUGUESE.
- 22 POLISH - MIGRATIONS TO DETROIT, BUFFALO, NYC, PHILADELPHIA, AND PITTSBURG. SPEAK POLISH, A SLAVIC LANGUAGE. SLAVIC LANGUAGES ARE ALSO SPOKEN IN BYELORUS, RUSSIA, BULGARIA, THE CZECH REPUBLIC, SERBO-CROATIA, SLOVENIA, SLOVAKIA, AND IN THE UKRAINE. A SMALL PERCENTAGE OF POLES SPEAK KASHUBIN, DERIVED FROM OLD CZECH. POLES ARE E. SLAV.
- 23 ESTONIAN - FINNO-UGRIC, ALONG WITH FINNISH AND HUNGARIAN. BALTIC.
- 24 LATVIAN - BALTIC, INDO-EUROPEAN. LANGUAGE IS LATVIAN, BASED UPON OLD PRUSSIAN.
- 25 LITHUANIAN- SUFFIXES 'VICIUS', 'UNIS', AND 'INSKA' ARE COMMON. BALTIC, INDO-EUROPEAN. LITHUANIAN, DERIVED FROM OLD PRUSSIAN, IS THE LANGUAGE.
- 26 UKRAINIAN - UKRAINIAN IS RUSSIAN DIALECT. THE SUFFIX 'ENKO' MEANS SON OF CYRILLIC/SLAVIC. THE SUFFIXES 'AITIS' 'ONIS', AND 'AUSKAS' ARE ALSO QUITE COMMON.
- 27 GEORGIAN -A CAUCASIAN PEOPLE , SPEAK GEORGIAN
- 28 BYELORUSSIAN - BELORUSSIANIS A DIALECT OF RUSSIAN. CYRILLIC/SLAVIC.
- 29 ARMENIAN - 'IAN' ENDINGS, FOR THE MOST PART, BUT ANGLICANIZATION HAS RESULTED IN DROPPED ENDINGS AND ALSO 'YAN' VARIATIONS. ARMENIAN IS ALSO A UNIQUE A LANGUAGE, NON-SLAVIC AND NON-PERSIAN.
- 30 RUSSIAN - THE ETHNIC RUSSIAN, NOT THE PERSON FROM RUSSIA. RUSSIANS ARE IN MANY EUROPEAN AND ASIAN COUNTRIES. PEOPLE IN RUSSIA ARE RUSSIAN AND MANY OTHER ETHNICITIES. CYRILLIC/SLAVIC.
- 31 TURK - HAVE ARAB NAMES AND NAMES ENDING IN 'OGLU'. IN ADDITION TO TURKEY, TURKS ARE FOUND IN THE FORMER SOVIET REPUBLICS OF KAZAKHSTAN, KYGEZSTAN, AND TURKMENISTAN, AS WELL AS IN AZERBAJAIN. THE ENDING "BASHI" MEANS "FATHER OF"



- 32 KURD -SPEAK KURDISH, FOUND IN IRAN, IRAQ, KURDISTAN PORTION TURKEY, AND IN PARTS OF SYRIA. KURDISH IS A PERSIAN LANGUAGE DERIVATIVE.
- 33 GREEK - INCLUDES MACEDONIAN, MANY OF WHOM RESIDE IN MACEDONIA, IN WHAT WAS YUGOSLAVIA
- 34 PERSIAN - THE ETHNIC GROUP THAT DOMINATES IRAN. SHOULD NOT BE CONFUSED WITH WHAT OTHER ETHNIC OFFERINGS MISLABEL AS IRANIANS, WHICH HAVE PERSIAN AND OTHER ETHNICITIES, SUCH AS BALUCHI. PERSIAN IS ALSO THE LANGUAGE OF THE PERSIANS. PERSIANS ARE FOUND IN IRAN, W. AFGHANISTAN, AND PERSIAN IS ALSO SPOKEN BY INDIAN MUSLIMS LIVING IN W. PAKISTAN. THE FORMER SOVIET REPUBLIC, TAJIKISTAN ALSO HAS A SIZABLE PERSIAN MINORITY. CONVERSELY, THE COUNTRY KNOWN AS IRAN HAS SIZABLE NON-PERSIAN MINORITIES INCLUDING TURKS.
- 36 BULGARIAN -SOUTHERN SLAV AND FINNO-UGRIC. ONLY ABOUT 10-15000 IN U.S.
- 37 ROMANIAN - LANGUAGE IS MOLDAVIAN, A ROMANCE LANGUAGE. LOTS OF MIGRATION TO BRONX AND BROOKLYN. OVER 325,000 RESIDE IN U.S., BUT NOT ALL CAN BE IDENTIFIED BY SURNAME. THE SUFFIXES 'ANU' AND 'EANU' REFER TO LOCATIONAL SURNAMES WHILE 'ESCU' IS PATRONYMIC, NAMED FOR A SAINT. THERE IS A SERBIAN POPULATION IN ROMANIA, WITH SUFFIXES SUCH AS 'VICI'. THESE ARE CLASSIFIED AS SERBIAN, NOT AS ROMANIAN. ROMANIAN IS ALSO SPOKEN IN THE BALKANS. SUNNYSIDE, NY HAS LARGE SETTLEMENT.
- 38 ALBANIAN -SPEAK ALBANIAN, WHICH IS ALSO SPOKEN IN PARTS OF ITALY. OFFICIALLY ATHEIST, BUT LOTS OF ISLAMIC. 90 PERCENT OF ALBANIA ARE ALBANIANS (10 PERCENT GREEK), AND THERE ARE ALBANIAN POPULATIONS IN ITALY AND THE KOSOVO REGION OF YUGOSLAVIA.
- 39 AMERICAN INDIAN- NORTH, THAT IS. WHAT WE REFER TO AS NATIVE AMERICANS
- 40 SLOVENIAN - N OF CROATIA, OVERWHELMINGLY SOUTHERN SLAVS. SPEAK SLOVEN MOSTLY CATHOLIC
- 41 CROATIAN -SPEAK SERBO-CROATIAN, AS DO THE SERBS. HOWEVER, THE CROATS USE THE ROMAN ALPHABET WHEN WRITING, DUE TO THEIR TENDENCY TOWARDS CATHOLICISM, WHILE THE SERBS WRITE WITH THE CYRILLIC ALPHABET AND ARE ORTHODOX. THERE ARE 800,000 TO 1 MILLION CROATS IN THE U.S.A.
- 42 SERBIAN - ORTHODOX, USE CYRILLIC ALPHABET. GREATER SERBIA CONTAINS MORE THAN SERBS, E.G., MACEDONIANS. THERE ARE SERBS IN CROATIA, BOSNIA, SLOVENIA, AND IN PLACES SUCH AS ROMANIA. COMMON SUFFIXES INCLUDE 'VICI', 'OVIC' (THE O IS THE SERBIAN DIFFERENTIATION, WHERE 'VIC' MAY NOT BE SERBIAN), AND THE NON-UNIQUE 'OVICH'
- 43 BOSNIAN - OVERWHELMINGLY SOUTHERN SLAV, BUT MIXED SLAV TYPES, MUSLIM AND ORTHODOX, MACEDONIAN, CROAT, SERB -THIS ETHNIC CODE USED FOR THE ISLAMIC BOSNIANS.
- NOTE: THE FORMER 'YUGOSLAVIA', WHICH COMPETITIVE LISTS STILL REFER TO, WAS COMPRISED OF APPROX 42% SERB, 23% CROAT, 9% SLOVENE, AND 26% MIXTURE OF MONTENEGRONS, BOSNIANS, MACEDONIANS, HERCEGOVINIANS, AND DALMATIANS, PLUS A SMATTERING OF OTHERS. THE TERM 'YUGOSLAVIA' WAS A POLITICAL NAME, NEVER AN ETHNIC DESCRIPTOR.
- 44 AZERBEJANI-
- 45 KAZAKH - 17.3 MILLION IN KAZAKHSTAN, 42% KAZAKH, ANOTHER

37% RUSSIAN, 21% OTHERS. ABOUT HALF ARE MOSLEM  
AND HALF RUSSIAN ORTHODOX.

46 AFGHAN - MOSLEM GROUP MOSTLY IN AFGHANISTAN. SOME SPILLOVER INTO  
NEARBY "STAN" COUNTRIES, AND IRAN

47 PAKISTANI -SPEAK URDU, PASHTO, BALUCHI

48 BANGLADESH- BENGALI

49 INDONESIAN-SPEAK INDONESIAN, A MALAY DIALECT

50 INDIAN - SPEAK ONE OF 13 SANAKRITIC DIALECTS OR 1 OF 4 DARD  
DIALECTS. THE FORMER ARE HINDU, BENGALI, URDU, PANJABI,  
MARATHI, ORIYA, ASSANESE, BIHARI, LAHNDIA, SINDHI, KONKANI,  
RAJASTHANI, AND GUJARATI WHILE THE LATTER ARE SHINA,  
KHOMAR, KAFIRI, AND KASHMIRI.TELUGU ALSO SPOKEN

51 BURMESE - SPEAK BURMESE A TIBETO-BURAM LANGUAGE

52 MONGOLIAN - AS DISTINCT FROM CHINESE

53 CHINESE - INCLUDES THE ISLAMIC GROUP IN WESTERN CHINA AS WELL AS  
THE BUDDHISTS. MANY CHINESE NAMES OVERLAP WITH KOREAN  
DUE TO PROXIMITY. THESE TWO VARIATIONS ARE ACCOUNTED  
FOR HEREIN, LIKELY NOT IN COMPETITIVE LISTS. ALSO, MANY  
COMPETITIVE LISTS HAVE NOT ACCOUNTED FOR THE MORE  
MODERN WAY OF ENGLISH TRANSLATION FOR ETHNIC CHINESE.  
FOR EXAMPLE, 'CHIANG KAI CHEK' TODAY WOULD BE 'XIANG'.  
RECENT IMMIGRATION USES THE NEWER TRANSLATIONS WHILE  
EARLIER MIGRATIONS MAY STILL RETAIN THE OLDER VERSIONS.  
COMPETITIVE LISTS PRIMARILY IDENTIFY ONLY THE EARLIER STYLE  
THERE ARE ABOUT 1000 LEGITIMATE CHINESE SURNAMES, MOSTLY  
TRANSLATED FROM CANTONESE, MANDARIN OR OTHER LANGUAGES TO  
ENGLISH.

56 KOREAN -1980 CENSUS HAD 354,000 BUT MORE LIKELY WELL OVER A  
MILLION HERE NOW, ESPECIALLY LOS ANGELES.ONLY ABOUT  
HALF ARE BUDDHIST, REST CHRISTIAN. OF THESE, HALF ARE  
PRESBYTERIAN, 25% METHODIST, REST SPLIT, INCLUDING CATHOLIC

57 JAPANESE - VARIOUS RELIGIONS BUT SHINTO DOMINATES. THE SURNAMES  
ARE MOSTLY DESCRIPTIVE COMBINATIONS, AND THE ENGLISH  
SPELLINGS SOUND ALMOST MUSICAL, DUE TO THE REPETITIVE  
VOWEL CONSONANT SOUNDS.

58 THAI -

59 MALAY - DOMINANT IN MALAYSIA. CHINESE AND OTHERS THERE TOO.  
MALAYS ALSO IN INDONESIA (BORNEO AND SUMATRA)

60 LAOTIAN -THE PEOPLE OF LAOS, ALSO IN N.E. THAILAND

61 CAMBODIAN -KHMER IS THE DOMINANT POPULATION OF CAMBODIA. THEY ARE  
BUDDHIST AND SPEAK KHMER. THERE ARE ALSO THE ISLAMIC  
CHAM BY LAOS AND VIETNAM, THE PEARICS, THE KUY BY THAILAND  
AND SOME AUSTRONESIAN AND NON KHMER MINORITIES.

62 VIETNAMESE-PREDOMINANT PEOPLE IN VIETNAM. MONTAGNARDS THERE TOO.  
SPEAK VIETNAMESE. SEE WESTMINSTER, CALIFORNIA AND GULF  
COAST OF TEXAS.

63 SRI LANKAN-

64 UZBEK- MOSTLY IN UZBEKISTAN, 22.6 MILLION. 71% UZBEK,8% RUSSIAN  
REST IS SPILLOVER MINORITIES SUCH AS TURK, KAZAKH, AND  
OTHERS.



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66 JEWISH - AN ETHNIC CULTURE WHERE SURNAMES OVERLAP AND VARY FROM EMIGRATION COUNTRY TO EMIGRATION COUNTRY. THE PREDOMINANT RELIGION IS ALSO JEWISH, BUT NOT ABSOLUTELY. THIS CATEGORY IS ETHNIC, NOT RELIGIOUS. NAMES HAVE BEEN SHORTENED OR MADE TO BLEND WITH LOCAL POPULATIONS IN MANY CASES. LARGE NUMBERS OF JEWISH NAMES ARE RUSSIAN AND GERMAN. THE YIDDISH LANGUAGE SPOKEN IN GERMANY AND E. EUROPE IS DERIVED FROM MIDDLE HIGH GERMANIC

67 ALEUT - THE N AMERICAN 'ESKIMO', SPEAKS ALEUTIAN.

69 FILIPINO - CODE RESERVED, BUT NO RESEARCH YET DONE. SURNAME APPROACH WILL NOT WORK, AS SURNAMES ARE GREEK AND HISPANIC.

70 ARAB -MOSTLY BUT NOT ABSOLUTELY ISLAMIC. THE ENGLISH VARIATIONS FROM THE ARABIC RESULT IN A VARIETY OF SPELLINGS, MANY APPEARING ALMOST FRENCH OR JEWISH. ARABS ARE FROM THE THE ARAB PENINSULA AND SPEAK ARABIC, A SEMITIC DERIVED LANGUAGE. FOR CONVENIENCE, THE ASSYRIAN PEOPLE, WHO SPEAK A DISTINCT ASSYRIAN LANGUAGE, AND MANY WHO LIVE IN SYRIA, ARE INCLUDED IN ARAB.

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79 RUANDAN - HUTU AND TSUTSI

80 BURUNDIAN

81 SENEGALESE-

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84 MOROCCAN -

85 BLACK AFRICAN

86 KENYAN -

87 NIGERIAN -SPEAK IBO

88 GHANIAN -SPEAK GA, SOME EWE

89 ZAMBIAN -

9K KIRGHIZ -MOSTLY IN KYGRZSTAN, 4.7 MILLION 52% KIRGHIZ, 22% RUSSIAN. SOME CHINESE ,KAZAKH, AND OTHERS.

22

- 9L TAJIK - MOSTLY IN TAJIKISTAN, WHERE THERE ARE 65% TAJIK AND 25% UZBEK, 10% SPILLOVER GROUPS, INCLUDING RUSSIAN.
- 90 ZAIRE -
- 91 SURINAM -
- 92 MOZAMBIQUE-
- 93 IVORY COAST-
- 94 BHUTANESE -
- 95 ETHIOPIAN - PRIMARILY USU PEOPLE. ETHIOPIAN IS A SEMITIC LANGUAGE. ALSO TIGREAN, AMHARA, GROMO, AND A FEW OTHER ETHNIC GROUPS VIEWED AS ONE IN THIS COUNTRY.
- 96 UGANDAN -
- 97 BOTSWANIAN-
- 98 CAMEROON -
- 99 ZIMBABWIAN-
- 9A NAMIBIAN -
- 9B
- 9C
- 9D GAMBIAN -
- 9E
- 9F MACEDONIAN- LARGELY E. ORTHODOX, BUT LOTS OF ISLAMIC. PEOPLE ARE MUSLIM!
- 9G
- 9H
- 9I
- 9J CHECHNIAN- MOSTLY ISLAMIC GROUP ON SOUTHERN RUSSIAN TIER. ABOUT 1.3 MILLION PEOPLE.

MISC NOTES: OTHER MACEDONIAN INCLUDED IN GREEK  
 FILIPINO IS AN ETHNIC GROUP BUT CANNOT BE IDENTIFIED  
 USING SURNAME APPROACHES. THIS IS BECAUSE THE FILIPINO  
 PEOPLE WERE GIVEN THEIR NAMES BY CHRISTIAN MISSIONARIES  
 WHO SWEEPED THRU THE PHILIPPINE ISLANDS. THESE INCLUDED  
 ORTHODOX AND CATHOLIC, AMONGST OTHERS. THE NAMES RESULTING  
 APPEAR TO BE GREEK OR HISPANIC, AS EXAMPLES.

ZULUS SPEAK BANTU.

SUNNI MUSLIMS ARE THE ORTHODOX. SHIA SECT NOT ORTHODOX.

TAJIKI SPOKEN IN CENTRAL ASIA.

AFRO-ASIATIC (N AFRICA AND SW ASIA) HAS SUBFAMILIES THAT  
 INCLUDE SEMITIC, EGYPTIAN, BERBER, CUSHITIC, AND CHAD

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# EXHIBIT C

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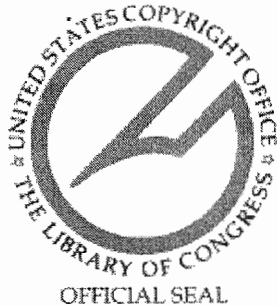
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\* Amended by C.O. Authority of TINA LINDSAY  
in telephone call on May 3, 1997.

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compilation and additional source code

—space deleted—

REPRODUCTION FOR USE OF BLIND OR PHYSICALLY HANDICAPPED INDIVIDUALS A signature on this form at space 8 and a check in one of the boxes here in space 8 constitutes a non-exclusive grant of permission to the Library of Congress to reproduce and distribute solely for the blind and physically handicapped and under the conditions and limitations prescribed by the regulations of the Copyright Office: (1) copies of the work identified in space 1 of this application in Braille or similar tactile symbols; or (2) phonorecords embodying a fixation of a reading of that work; or (3) both

a. ☐ Copies and Phonorecords

b. ☒ Copies Only

c. ☐ Phonorecords Only

See instructions

DEPOSIT ACCOUNT If the registration fee is to be charged to a Deposit Account established in the Copyright Office, give name and number of Account.

Name ▼

Account Number ▼

CORRESPONDENCE Give name and address to which correspondence about this application should be sent. Name/Address/Apt/City/State/ZIP ▼

TINA LINDSAY  
44 BRIARWOOD AVENUE  
KEANSBURG NJ 07734

Area Code and Telephone Number ▶ 908-495-6233

Be sure to  
give your  
daytime phone  
number

CERTIFICATION\* I, the undersigned, hereby certify that I am the

Check only one ▶

☐ other copyright claimant

☒ owner of exclusive rights

☐ authorized agent of

of the work identified in this application and that the statements made  
by me in this application are correct to the best of my knowledge.

Name of author or other copyright claimant, or owner (exclusive rights) ▶

Typed or printed name and date ▼ If this application gives a date of publication in space 3, do not sign and submit it before that date.

TINA LINDSAY

date ▶ 11/11/96



Handwritten signature (A)

Tina Lindsay

MAIL  
CERTIFI-  
CATE TO

Name ▼

TINA LINDSAY

Number/Street Apartment Number ▼

44 BRIARWOOD AVENUE

City/State/ZIP ▼

KEANSBURG NJ 07734

Certificate  
will be  
mailed in  
window  
envelope

#### YOU MUST

- Complete all necessary spaces
- Sign your application in space 10

#### SEND ALL 3 ELEMENTS IN THE SAME PACKAGE

1. Application form
2. Nonrefundable filing fee in check or money order payable to Registrar of Copyrights
3. Deposit material

#### MAIL TO:

Registrar of Copyrights  
Library of Congress  
Washington, D.C. 20540-6000

The Copyright Office has the authority to adjust fees at 5-year intervals, based on changes in the Consumer Price Index. The next adjustment is due in 1998. Please contact the Copyright Office after July 1998 to determine the actual fee schedule.

\*17 U.S.C. § 506(e). Any person who knowingly makes a false representation of a material fact in the application for copyright registration provided for by section 409, or in any written statement filed in connection with the application, shall be fined not more than \$2,500.

July 1993—300,000

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U.S. GOVERNMENT PRINTING OFFICE: 1993-342-582-80-019

# EXHIBIT D

86/30/1997 09:53 201-996-1777

JUN-30-97 MON 9:47 AM LIST SERVICE DIRECT

86-20-1997 02:47PM FROM O. GENE HURST ESQ.

KREVITT & CHERNIN PC

FAX NO. 201 585 1732

PAGE 06

P. 3

TO 12015851732 P.01

FAVED COPY

June 20, 1997

TO: Micah Raskin and Tom Raskin  
List Service Direct  
135 W. Central Blvd.  
Palisades Park, NJ 07650

FROM: Tina Lindsay, President  
TAP Systems, Inc.  
44 Briarwood Avenue  
Keansburg, NJ 07734

RE: LCID

Dear Messrs. Raskin:

This is to inform you that effective June 1, 1997, all rights to license the LCID product were assigned to TAP Systems, Inc. A copy of the agreement between myself and TAP Systems, Inc., is attached.

All rights which have been utilized by LSDI in the past with regard to LCID are terminated effective immediately.

This means that you will have to negotiate with TAP Systems, Inc., for any rights to use the LCID product, to encode customer files or to sell licenses to third parties, if not from June 1, 1997, then from June 20, 1997.

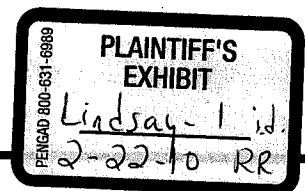
I will be happy to discuss these arrangements with you at your earliest convenience.

*Tina Lindsay*  
Tina Lindsay

CC: O. Gene Hurst, Esq.

TOTAL P.01

Exhibit "G"



06/30/1997 09:53 201-996-1777

JUN-30-97 MON 9:48 AM

LIST SERVICE DIRECT

KREVITT & CHERNIN PC

FAX NO. 201 585 1732

PAGE 07

P. 4

Certified Letter #1

Fold at line over flap of envelope to  
the right of the return address

**CERTIFIED**

P 127 150 494

**MAIL**

Micah Raskin and Tom Raskin  
List Service Direct  
135 W. Central Blvd.  
Palisades Park, NJ 07650

NAME

1ST NOTICE

2ND NOTICE

RETURN

Tina Lindsey, Pres.  
Tap System, Inc.  
44 Briarwood Blvd.  
Keansburg, NJ 07734



06/30/1997 09:53 201-996-1777

JUN-30-97 MON 9:50 AM LIST SERVICE DIRECT

KREVITT & CHERNIN PC

FAX NO. 201 585 1732

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Certified Letter #2

#### SOFTWARE LICENSE AGREEMENT

THIS SOFTWARE LICENSE AGREEMENT entered into by and between Tina Lindsay ("Copyright Holder") having offices at 44 Briarwood Ave., Keansburg, NJ 07734 and TAP Systems, Inc., ("Licensee"), a New Jersey Corporation having principal offices at 1088 Raritan Road, Clark, N J 07066 determines the rights and licenses granted to the Licensor, including the right to license Licensed Software (hereinafter defined) to End Users (hereinafter defined).

1. DEFINITIONS. As used in this License Agreement, the following definitions shall apply:

(a) "Licensed Product" shall mean collectively the Licensed Software and Licensed Documentation.

(b) "Licensed Software" shall mean the software identified on Schedule A, attached hereto and made a part hereof, in source and object code form, in the form and content existing as of the date of this Agreement and all updates, revisions and enhancements thereto supplied by the Owner during the term hereof.

(c) "Licensed Documentation" shall mean all documentation, other than the Licensed Software, related to the Licensed Software.

(d) "Licensed Site or Site License" shall mean a location identified by a single business address as set forth on the signatory page.

(e) "End User" shall mean the purchaser of a site license.

#### 2. LICENSE.

(a) Copyright Holder hereby grants to the Licensee, and the Licensee hereby accepts, a personal and exclusive license to market, demonstrate and distribute, during the term hereof, the

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KREVITT & CHERNIN PC

PAGE 12

JUN-30-97 MON 9:51 AM LIST SERVICE DIRECT

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P. 9

Licensed Product to End Users for use only on the Licensed Site.

(b) Licensee shall distribute the Licensed Software to End Users subject to the terms and conditions of the Software License Agreement enclosed with the Licensed Product which governs its use by the End Users.

### 3. LICENSE FEES AND TAXES

(a) In consideration of the Copyright Holder granting the Licensee the rights and licenses set forth herein, the Licensee shall pay the Copyright Holder a fee of one (\$1) dollar.

(b) The Licensee shall purchase, and the Copyright Holder shall sell, copies of the Licensed Product.

(c) Licensee shall pay all personal property taxes, if any, and all taxes based on or in any way measured by this Agreement, the Licensed Products or any portion thereof, or any services related thereto, excluding taxes based on the net income of the Owner.

### 4. DUTIES OF LICENSEE.

(a) During the term hereof the Licensee shall use its best efforts to market, demonstrate, and distribute the Licensed product to owners and lessees of the Licensed Site.

(b) During the term of the Agreement and for a period of five years thereafter, Licensee shall maintain accurate records of all recipients of the Licensed Software and make such records available to the Copyright Holder for inspection and copying during normal business hours.

(c) Licensee shall promptly inform Copyright Holder of any unauthorized use by End Users or others of the Licensed Software or

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KREVITT & CHERNIN PC  
FAX NO. 201 585 1732

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any portion thereof and assist the Copyright Holder in the enforcement of any rights Owner may have against such End Users or others.

5. TERM OF AGREEMENT AND LICENSES.

(a) Unless otherwise terminated or canceled as provided herein, the term hereof and of the licenses granted to the Licensee hereunder shall be in perpetuity.

(b) The effective date of this Agreement shall be the date of Copyright Holders acceptance hereof.

6. PROTECTION OF LICENSED PRODUCT.

(a) The Licensed Software is the Copyright Holders exclusive property and constitutes a valuable trade secret of the Copyright Holder. Licensee agrees that the Licensed Product shall be distributed to End Users and the Licensed Product or any portion thereof may not be disclosed or made available to third parties, other than to End Users.

(b) Upon the expiration of this Agreement, Licensee shall immediately destroy all copies of the Licensed Product in its possession or control.

7. NEGATION OF WARRANTY. The Licensed Product is provided on an "AS IS" basis, and there are no warranties, express or implied, including, but not limited to, any warranty or merchantability or fitness for particular purpose. The Licensee and the End User shall be solely responsible for the selection, installation, use, efficiency, and suitability of the Licensed Product and Copyright Holder shall have no liability therefor.

8. NEGATION OF PROPRIETARY RIGHTS INDEMNITY. Copyright

06/30/1997 . 09: 53

201-996-1777

KREVITT &amp; CHERNIN PC

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JUN-30-97 MON 9:52 AM LIST SERVICE DIRECT

FAX NO. 201 585 1732

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Holder shall have no liability to Licensee and/or the End User for the infringement of proprietary rights by the Licensed Product or any portion thereof.

9. LIMITATION OF LIABILITY.

(a) In no event shall Copyright Holder be liable to Licensee or End Users for any damages resulting from or related to any failure of the Software Product, including, but not limited to, loss of data, or delay of Owner in the delivery of the Licensed Product or in the performance of this Agreement.

(b) In no event shall Copyright Holder be liable to Licensee or End User for any indirect, special, or consequential damages or loss profits, arising out of or related to this Agreement or the performance or breach thereof, even if Copyright Holder has been advised of the possibility thereof. Copyright Holders' Liability to Licensee and/or End User hereunder, if any, shall in no event exceed the total of the License fees paid hereunder by Licensee.

10. GENERAL.

(a) This Agreement is the sole agreement between the parties relating to the subject matter hereof and supersedes all prior understandings, writings, proposals, representations, or communications, oral or written, of either party. This Agreement may be amended only by an instrument executed by the authorized representatives of both parties.

(b) This Agreement and the rights and licenses granted hereunder may not be transferred or assigned by Licensee without the prior written consent of the Copyright Holder.

06/30/1997 09:53 201-996-1777  
JUN-30-97 MON 9:52 AM LIST SERVICE DIRECT

KREVITT & CHERNIN PC  
FAX NO. 201 585 1732

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(c) If Licensee, for any reason, ceases operations then this license shall be terminated.

(d) This Agreement shall be interpreted in accordance with the substantive laws of the State of New Jersey.

TAP SYSTEMS, INC. ("Licensee")

BY: Tina Lendsey  
TITLE: President  
DATE: 6/1/97

Accepted on behalf of Copyright Holder

BY: Tina Lendsey  
DATE: 6/1/97

06/30/1997 . 09:53 201-996-1777  
JUN-30-97 MON 9:53 AM LIST SERVICE DIRECT

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FAX NO. 201 585 1732

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#### SCHEDULE A

##### LICENSED PRODUCT LCID

LCID, consists of a set of both computer programs and data files as follows:

- \* unique first name file by ethnicity
- \* non-unique surname file by ethnicity
- \* a series of two to five character prefix rules by ethnicity
- \* a series of two to five character suffix rules by ethnicity
- \* a series of codes to identify the ethnic, religious, and minority status
- \* a geocentric reference table
- \* a series of computer programs that analyze individual names utilizing the system data

LCID computer programs and the system data are irrevocably entwined.

LCID accurately identifies the specific ethnic, religious and minority status of individuals having a multi-ethnic surname.

June 20, 1997

TO: Harriet Heyman  
Harte Hanks, Inc.

FROM: Tina Lindsay

RE: LCID

Dear Ms. Heyman:

This is to inform you that all my rights as the copyright holder of LCID have been transferred to TAP Systems, Inc., as of June 1, 1997. A copy of the transfer will be forwarded for delivery on Monday, June 23, 1997.

Further by letter dated June 20, 1997, all rights of LSDI of Palisades Park, New Jersey, have been terminated.

TAP Systems, Inc., is the exclusive licensee for LCID. Consequently, there are no authorized licensors except TAP Systems, Inc. In fact, a more recent version of LCID will be made available to you by TAP Systems as early as needed.

Please note that such transfer will not have any negative effect on Harte Hanks, Inc., (including costs.)

A representative of TAP Systems, Inc., will be contacting you on Monday morning, June 23, 1997.

Sincerely,

Tina Lindsay

CC: Carolyn DeLuca

FAX'd this date to 508-436-2973

# EXHIBIT E



## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

Registration Number  
**TX 7-029-483**

Effective date of  
registration:  
December 23, 2009

### Title

**Title of Work:** Ethnic Encoding System Module - Tap05  
Ethnic Encoding System Module - Tap06  
Ethnic Encoding System Module - Tap08  
Ethnic Encoding System Module - Tap10  
Ethnic Encoding System Module - Tap15  
Ethnic Encoding System Job Control Language Module

### Completion/ Publication

**Year of Completion:** 1997

**Date of 1st Publication:** July 19, 1997

**Nation of 1st Publication:** United States

### Author

■ **Author:** Peter Brownstein  
**Author Created:** computer program

**Citizen of:** United States

**Domiciled in:** United States

### Copyright claimant

**Copyright Claimant:** Peter Brownstein

54 Broad Avenue, Apt. 5B, Palisades Park, NJ, 07650, United States

### Limitation of copyright claim

**Material excluded from this claim:** computer program

**Previous registration and year:** TXu000778127 1996

TXu000730872 1996

**New material included in claim:** computer program

### Rights and Permissions

# EXHIBIT F

## Certificate of Registration



This Certificate issued under the seal of the Copyright Office in accordance with title 17, *United States Code*, attests that registration has been made for the work identified below. The information on this certificate has been made a part of the Copyright Office records.

*Marybeth Peters*

Register of Copyrights, United States of America

Registration Number

TX 7-029-492

Effective date of  
registration:

December 23, 2009

Title \_\_\_\_\_

Title of Work: Ethnic Encoding System Module - Tap09  
Ethnic Encoding System Module - Tap22

Completion/ Publication \_\_\_\_\_

Year of Completion: 1998

Date of 1st Publication: November 19, 1998

Nation of 1st Publication: United States

Author \_\_\_\_\_

■ Author: Peter Brownstein

Author Created: computer program

Citizen of: United States

Domiciled in: United States

Copyright claimant \_\_\_\_\_

Copyright Claimant: Peter Brownstein

54 Broad Avenue, Apt. 5B, Palisades Park, NJ, 07650, United States

Limitation of copyright claim \_\_\_\_\_

Material excluded from this claim: computer program

Previous registration and year: TXu000778127 1996

TXu000730872 1996

New material included in claim: computer program

Rights and Permissions \_\_\_\_\_

Organization Name: The McDaniel Law Firm, P.C.

Name: Dmitry Kogan

Email: dkogan@mcclawpc.com

Telephone: 201-845-3232

Address: 54 Main Street

Hackensack, NJ 07601 United States

Certification \_\_\_\_\_

# EXHIBIT G

**THE MCDANIEL LAW FIRM, PC**

54 MAIN STREET  
HACKENSACK, NJ 07601  
(201) 845-3232  
(201) 845-3777 FAX

WWW.MCDLAWPC.COM

EMPIRE STATE BUILDING  
350 FIFTH AVENUE, 59<sup>TH</sup> FLOOR  
NEW YORK, NY 10118  
(212) 514-8080  
(212) 514-8282 FAX

JAY R. MCDANIEL  
JRMCDANIEL@MCDLAWPC.COM

PLEASE REPLY TO  
NEW JERSEY OFFICE

March 5, 2010

**VIA FACSIMILE**

Thomas S. Howard, Esq.  
Kirsch Gartenberg Howard  
Two University Plaza  
Suite 400  
Hackensack, NJ 07601

Re: Brownstein v. Lindsay, et al.  
Our File No: 1128/002  
DOCKET NO.: C-150-09, C-209-09

Dear Tom:

In the week before Tina Lindsay's deposition on February 23, 2010, we secured certain documents from the court's file in *LSDI v. Lindsay, et al.*, concerning the registration of the original TAP System. As you may be aware, we also questioned Ms. Lindsay about the registration during her deposition.

The documents that we obtained, in particular the assignment of the Lindsay system by Ms. Lindsay to TAP, and Ms. Lindsay's acknowledgment that the second copyright she filed included various programs written by Peter Brownstein make clear that there are unresolved issues concerning the ownership of the intellectual property from which the E-Tech system is derived.

First, it is now clear that the second copyright was a joint work under applicable copyright law and that, accordingly, Peter Brownstein is a co-author. The assignment from Lindsay to TAP did not encompass Peter's rights as co-author. Thus, while TAP is the assignee of the copyright of Ms. Lindsay's interest. Mr. Brownstein has made no such assignment and thus, regardless of the outcome of this litigation, is entitled to a reasonable royalty on his interest.

Thomas S. Howard  
March 5, 2010  
Page 2

Please consider this letter a formal demand that Tina Lindsay agree to correct her 1996 copyright registrations by adding Peter Brownstein as a co-author and co-claimant pursuant to 17 U.S.C. §408(d). Tina Lindsay also stated that likely has a copy of the deposit copies that were included with the registrations. Our attempts to secure deposit copies were initially unsuccessful. I therefore request that you provide us with Ms. Lindsay's deposit copies.

As you are also likely aware, numerous revisions have been made to the E-Tech system prior to the execution of the 2000 joint venture agreement. Those works were subsequently contributed to the combined system by virtue of the license provided for in the amended joint venture agreement. Peter Brownstein is the owner of the copyrights in the programs that he authored prior to the joint venture agreement and has registered certain copyrights for certain programs completed during 1997 and 1998.

It is our belief that there are additional copyrights owned by Mr. Brownstein individually. Copies of those programs were stored at E-Tech and your client is obligated to assure that those copies are not destroyed. Again, the software that is utilized by E-Tech is derivative of those works. The use of those works has always been contingent on Mr. Brownstein's ownership of and participation in E-Tech. In the event that your clients are successful in forcing a sale of Mr. Brownstein's interest, the license to use those programs will terminate and the continued use would constitute copyright infringement.

I want to make it clear that my client has not and does not waive any right or remedy arising under federal copyright law, including the right to royalties arising under the original copyrights and the rights generally available to derivative works created thereafter.


Thomas S. Howard

March 5, 2010

Page 3

With regard to the amendment of the copyright registration, I need your immediate answer. I am also advising the court of the situation and she will no doubt need a quick response.

Very truly yours,

A handwritten signature in black ink, appearing to read "Jay R. McDaniel", written in a cursive style.

Jay R. McDaniel

CC: Peter Brownstein

# EXHIBIT H





Attorneys at Law

March 9, 2010

*Facsimile Transmission*

Jay R. McDaniel, Esq.  
McDaniel Law Firm PC  
54 Main Street  
Hackensack, NJ 07601

Re: Brownstein v. Lindsay

Dear Jay:

I received your faxed letter today, which bears an incorrect date of March 5, 2010.

We disagree with the position you and your client are now taking with respect to the intellectual property. I will discuss with my client whether any further response to your letter is either necessary or appropriate.

In the meanwhile, please tell me why Mr. Brownstein is alleging this interest now, after waiting 14 years, after signing several related agreements and after working almost daily with Ms. Lindsay, until recently.

Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read 'T. Howard'.

Thomas S. Howard

cc: Mr. Zachary Wilhoit

H:\4008.000 E-Tech\correspondence\Defense Counsel\McDaniel 3-9-10.doc

TWO UNIVERSITY PLAZA, SUITE 400, HACKENSACK, NEW JERSEY 07601 T 201.488.4644  
11 PENN PLAZA, FIFTH FLOOR, NEW YORK, NEW YORK 10001 T 212.248.2936

FACSIMILE 201.488.6842 • WEBSITE [www.kghlaw.com](http://www.kghlaw.com)